SONY

SERVICE MANUAL

G1 CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO	MODEL	COMMANDER	DEST.	CHASSIS NO
KV-S29JN1							
KV-S29CX1							

CORRECTION-2

SUBJECT: PART CHANGE

File this correction with the service manual.

☛ : Corrected portion

SECTION 7 EXPLODED VIEWS

7-1. CHASSIS (See page 116)

INCORRECT			CORRECT		
REF.NO	PART NO	DESCRIPTION	REF.NO	PART NO	DESCRIPTION
12	*A-1241-104-A	F1 BOARD,COMPLETE	12	*1-643-889-13 ☛	F1 BOARD,COMPLETE

SECTION 8 ELECTRICAL PARTS LIST

F1 BOARD (See page 130)

INCORRECT			CORRECT		
REF.NO	PART NO	DESCRIPTION	REF.NO	PART NO	DESCRIPTION
	*A-1241-104-A	F1 BOARD,COMPLETE		*1-643-889-13 ☛	F1 BOARD,COMPLETE

※ Please file according to model size...... ▩

29

MICROFILM

9-964-921-92

Sony Corporation
Consumer A&V Products Company
TV & Display Products Div.

English
95HE02014-1
Printed in Japan

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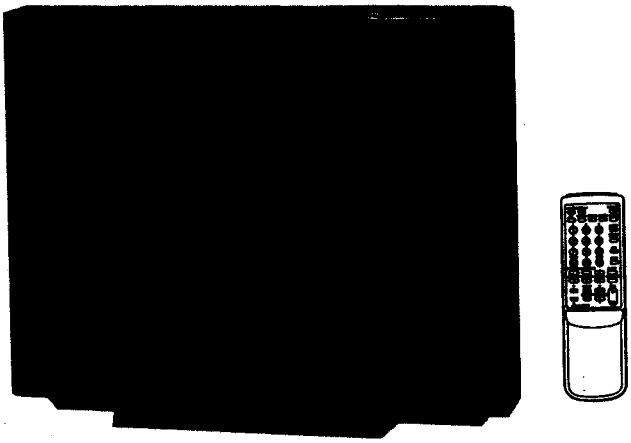
KV-S29JN1/S29MN1/S29SN1
KV-S34JN1/S34MN1/S34SN1
RM-821

SERVICE MANUAL

JE Model
KV-S29JN1
Chassis No. SCC-F54B-A
KV-S34JN1
Chassis No. SCC-F54A-A

GE Model
KV-S29MN1
Chassis No. SCC-F51B-A
KV-S34MN1
Chassis No. SCC-F51A-A

Australian Model
KV-S29SN1
Chassis No. SCC-F53B-A
KV-S34SN1
Chassis No. SCC-F53A-A



G I CHASSIS

MODELS OF THE SAME SERIES	
KV-S29JN1/S29MN1/S29SN1	
KV-S34JN1/S34MN1/S34SN1	

TRINITRON® COLOR TV
SONY®

MICROFILM

Specifications

Television standards	B/G, H, I, D/K, M
Color system	PAL, SECAM, NTSC 4.43, NTSC 3.58
NICAM stereo system	B/G -system: KV-S34MN1/S34SN1/S34JN1/S29MN1/S29SN1/S29JN1
Antenna	75-ohm external antenna terminal
Speakers	Woofer 12 cm Middle-High 5 cm

Inputs

Jack	S VIDEO	VIDEO	AUDIO L/R
VIDEO 1	4-pin mini DIN Y: 1 Vp-p, 75 ohms, unbalanced, sync negative C: 0.286 Vp-p, 75 ohms	Phono jack 1 Vp-p, 75 ohms, unbalanced, sync negative	0.5 Vrms (standard level, 47 kiloohms)
VIDEO 2			
VIDEO 3	—		
VIDEO 4	4-pin mini DIN Y: 1 Vp-p, 75 ohms, unbalanced, sync negative C: 0.286 Vp-p, 75 ohms		

Output

Jack	S VIDEO	VIDEO	AUDIO L/R
VIDEO 1	4-pin mini DIN Y: 1 Vp-p, 75 ohms, unbalanced, sync negative C: 0.286 Vp-p, 75 ohms	1 Vp-p, 75 ohms, unbalanced, sync negative	0.5 Vrms (standard level, 5 kiloohms or less)
VIDEO 2			
VIDEO 4			
MONITOR			
AUDIO OUT	—	—	

Power requirements
KV-S34JN1/S29JN1: 110 – 240 V AC, 50/60 Hz
KV-S34MN1/S34SN1/S29MN1/S29SN1: 220 – 240 V AC, 50/60 Hz

Model	KV-S34MN1/ S34SN1/S34JN1	KV-S29MN1/ S29SN1/S29JN1
Picture tube	34-inch (about 86 cm) Trinitron tube (about 80 cm picture measured diagonally) 110-degree deflection	29-inch (about 72 cm) Trinitron tube (about 68 cm picture measured diagonally) 110-degree deflection
Power consumption	225 W	223 W
Dimensions (w/h/d)	809 x 649 x 574 mm	694 x 558 x 527 mm
Weight	81 kg	56 kg

Accessories supplied	RM-821 Remote Commander (1) R6 batteries (2) Power cord plug adaptor (2, only for KV-S34JN1/S29JN1) Band (1), Clamp (2), Screw (4)
Optional accessory	RM-829 Remote Commander SU-S34 A/V rack SU-S29 A/V rack

Design and specifications are subject to change without notice.

Channel Coverage

MIDDLE EAST/ASIA (B/G, H)

Receivable Channel	Channel Display
E-2 to E-12 E-21 to E-69	C02 to C12 C21 to C69
Indonesia	
2 to 11	C03 to C12
Morocco	
M-4 to M-7 M-8 to M-10	C70 to C73 C8 to C10
New Zealand	
2 3 4 to 9	C03 C04 C05 to C10

CATV W. EUROPE (B/G, H)

Receivable Channel	Channel Display
S-01 to S-03 S-1 to S-41	C42 to C44 C01 to C41

AUSTRALIA (B/G, H)

Receivable Channel	Channel Display
Australia	
AS-0 to AS-11 AS-5A AS-28 to AS-69	C00 to C11 C12 C28 to C69
New Zealand	
2 to 3 4 to 7 8 9	C01 to C02 C06 to C09 C13 C10

HK/UK (I)

Receivable Channel	Channel Display
Hong Kong, United Kingdom	
B-21 to B-68	C21 to C68
Ireland	
B,C,..., J	C02, C03,..., C09
South Africa	
4 to 13 21 to 68	C04 to C13 C21 to C68

E.EUROPE/CHINA (D/K)

Receivable Channel	Channel Display
East European countries	
R-1 to R-12 R-21 to R-60	C01 to C12 C21 to C60
China	
C-1 C-2 C-3 C-4 C-5 C-6 C-7 to C-12 C-13 to C-24 C-25 to C-47 C-48 to C-57	C01 C02 C13 C03 C04 C14 C06 to C11 C21 to C32 C38 to C60 C61 to C70

AMERICA (M)

Receivable Channel	Channel Display
2 to 83	C02 to C83

CATV AMERICA (M)

Receivable Channel	Channel Display
2 to 13 A-1 A-2 A-3 A-4 A-5 A-6 A-7 A-8 A, B,..., W AA,..., CCC	C02 to C13 C99 C98 C97 C96 C95 C06 C05 C01 C14, C15,..., C36 C37,..., C65

JAPAN

Receivable Channel	Channel Display
J-1 to J-62 C-13 to C-32	C01 to C62 C80 to C99

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CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

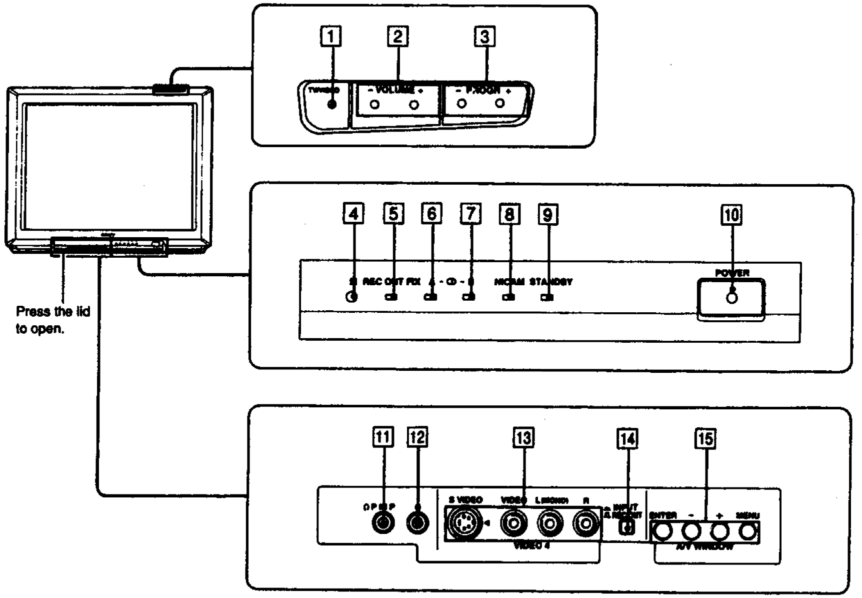
The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remein as in the manual.

SECTION 1
GENERAL

1-1. OVERVIEW

This section briefly describes the buttons and controls on the TV set and on the Remote Commander. For more information, refer to the pages given next to each description.

TV set


1
2
3
TV/VIDEO
- VOLUME +
- PROGR +
4
5
6
7
8
9
10
REC OUT FIX
A - ⊙ - B
NICAM
STANDBY
POWER
11
12
13
14
15
P IN P
S VIDEO
VIDEO
L(MONO)
R
VIDEO 4
INPUT REC OUT
ENTER
-
+
MENU
A/V WINDOW

Press the lid to open.

1 TV/VIDEO button ●

2 VOLUME +/– buttons ●
Press to adjust the volume.

3 PROGR (program) +/– buttons ●
Press to select a program.

4 ■ Remote control detector
Operate the Remote Commander pointed at here.

5 REC OUT(recording output) FIX lamp ●

6 A mode lamp ●

7 B mode lamp ●

8 NICAM lamp ●

9 STANDBY lamp

10 POWER switch

11 ∩ P IN P (Picture In Picture) headphones jack
Connect a headphone to listen to the sound of P IN P picture.

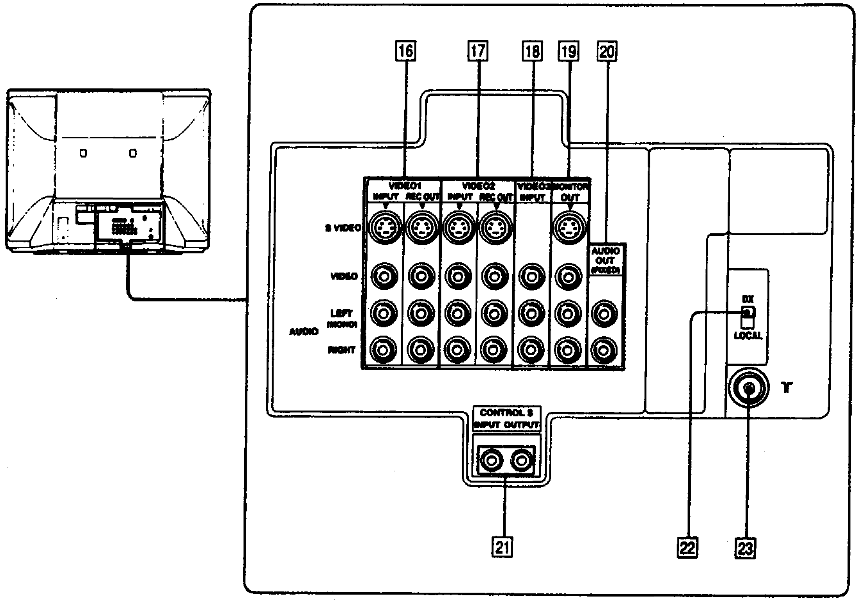
12 ∩ Headphones jack
Connect a headphones to listen personally.

13 VIDEO 4 connectors ●

14 VIDEO 4 INPUT/REC OUT(recording output) button ●
Press to switch the video 4 connectors to input or output.

15 Menu and A/V(audio/video) WINDOW function buttons ●●●●●●●●

Rear


16
17
18
19
20
VIDEO1
INPUT
REC OUT
VIDEO2
INPUT
REC OUT
VIDEO3
INPUT
MONITOR
OUT
AUDIO OUT (FIXED)
S VIDEO
VIDEO
LEFT (MONO)
AUDIO
RIGHT
CONTROL S
INPUT OUTPUT
DX
LOCAL
Ͳ
21
22
23

16 VIDEO 1 INPUT/REC OUT(recording output) jacks ●

17 VIDEO 2 INPUT/REC OUT(recording output) jacks ●

18 VIDEO 3 INPUT jacks ●

19 MONITOR OUT(output) jacks
Connect another TV or monitor.

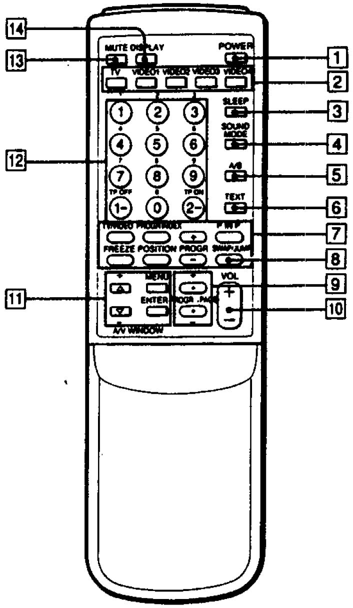
20 AUDIO OUT(output) (FIXED) jacks ●

21 CONTROL S INPUT/OUTPUT jacks
To control the TV with the Remote Commander to be pointed at another Sony equipment, connect the Sony equipment to INPUT.
To control another Sony equipment with the Remote Commander to be pointed at the TV, connect the Sony equipment to OUTPUT.

22 DX/LOCAL switch
Normally set this switch to DX. If the sound is noisy, or lines or stripes appear on the screen because of too strong TV signal, set the switch to LOCAL.

23 Ͳ (antenna) terminal ●

Remote Commander



1 POWER button ●

2 TV, VIDEO 1, VIDEO 2, VIDEO 3, VIDEO 4 (FRONT) input select buttons ●

3 SLEEP button ●
Press to set the sleep timer so that the TV automatically switches into standby mode.

4 SOUND MODE button ●
Press to select the sound mode according to the program.

5 A/B button ●
Press to select the sound mode of stereo or bilingual program.

6 TEXT button ●
Press to switch to teletext mode.

7 P IN P (Picture In Picture) screen control buttons ● ●

8 JUMP button ●

9 PROGR(program)/PAGE +/– buttons ● ● ●

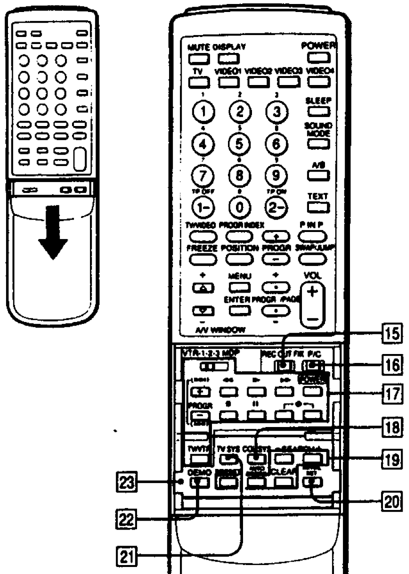
10 VOL(volume) +/– buttons ●

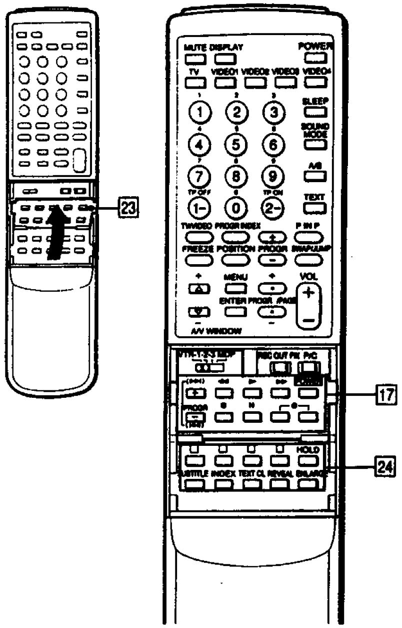
11 Menu and A/V(audio/video) window function buttons
● ● ● ● ● ● ● ●

12 Program number buttons ●

13 MUTE button ●

14 DISPLAY button ●
Press to display current mode and program position.





15 REC OUT(recording output) FIX button ●
Press to fix the source to be recorded.

16 P/C (program position/channel) button ●

17 VTR/Multi disc player controls

When the panel 23 is in the lower position

18 COL SYS(color system) button ●
Press to select a color system.

19 Channel presetting buttons ● ●

20 INITIAL SET button
Press to reset the adjustment and setting to factory-set mode.

21 TV SYS(system) button ● ●
Press to select a TV system.

22 DEMO(demonstration) button ●
Press to see all the menu pages in sequence.

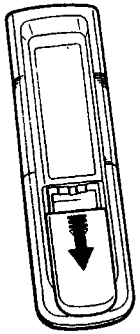
23 Panel
Make sure that the panel is fixed in the upper or lower position.

When the panel is in the upper position

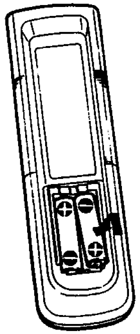
24 Teletext operation buttons ● ●

1-2. INSETING THE BATTERIES INTO THE SUPPLIED REMOTE COMMANDER

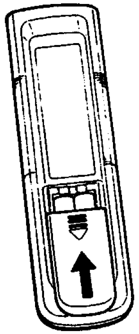
1 Detach the cover.



2 Check the correct polarities.



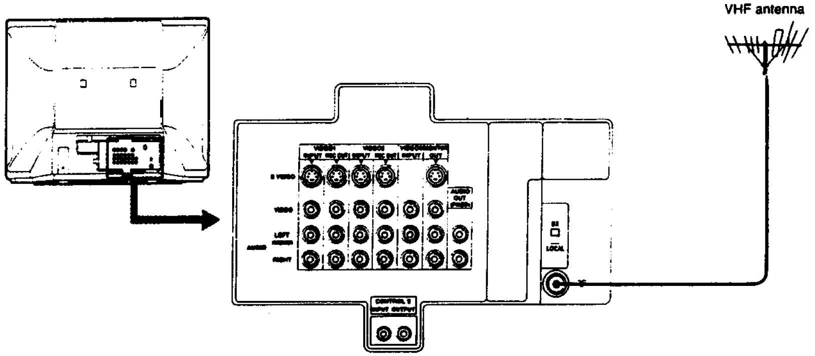
3 Replace the cover.



1-3. CONNECTING THE ANTENNA

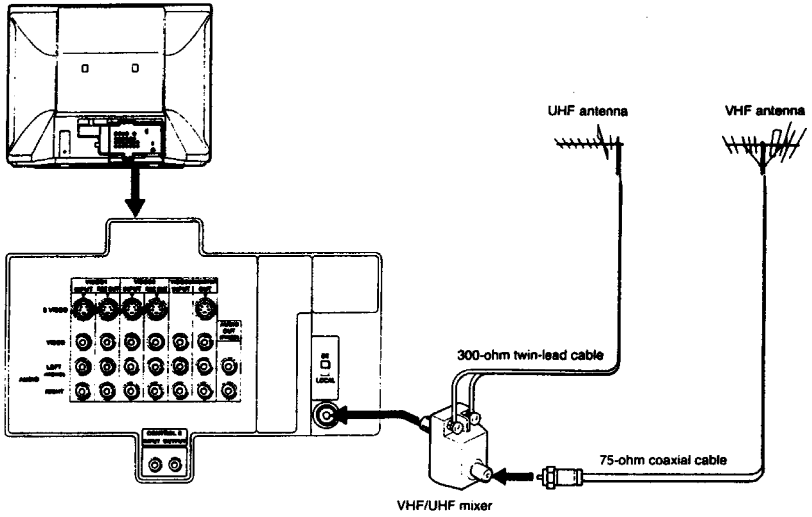
Connecting a VHF Antenna or a Combination VHF/UHF Antenna–Round 75-ohm Coaxial Cable

Attach an IEC antenna connector to 75-ohm coaxial cable.
Plug the connector into the T (antenna) socket at the rear of the TV.


VHF antenna

Connecting Both VHF and UHF Antennas

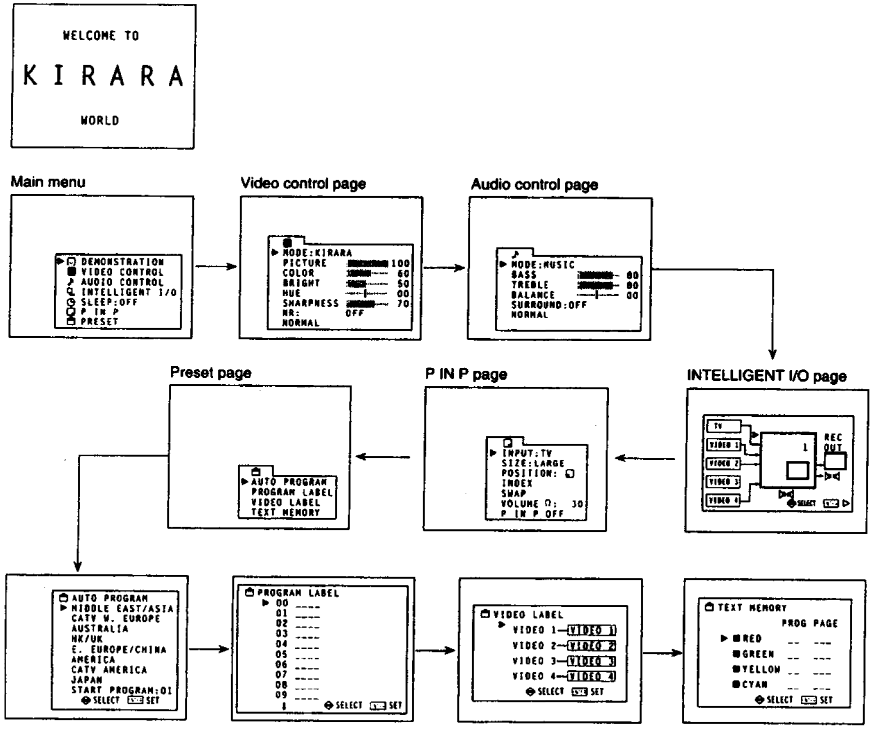
Attach the antenna ends to the VHF/UHF mixer (not supplied).
Plug the mixer into the T (antenna) socket at the rear of the TV.


UHF antenna
VHF antenna
300-ohm twin-lead cable
75-ohm coaxial cable
VHF/UHF mixer

1-4. INTRODUCTION OF MENU

You will perform presetting, adjustment and other setting on the menu. Before beginning the presetting and operation, we suggest to have a look at the pages in the menu.

Press the DEMO button on the Remote Commander.
All the menu pages appear in sequence, and repeatedly.
To stop demonstration, press any button.


WELCOME TO
K I R A R A
WORLD
Main menu
DEMONSTRATION
VIDEO CONTROL
AUDIO CONTROL
INTELLIGENT I/O
SLEEP:OFF
P IN P
PRESET
Video control page
MODE:KIRARA
PICTURE 100
COLOR 60
BRIGHT 50
HUE 00
SHARPNESS 70
NR: OFF
NORMAL
Audio control page
MODE:MUSIC
BASS 00
TREBLE 00
BALANCE 00
SURROUND:OFF
NORMAL
Preset page
AUTO PROGRAM
PROGRAM LABEL
VIDEO LABEL
TEXT MEMORY
P IN P page
INPUT:TV
SIZE:LARGE
POSITION:
INDEX
SWAP
VOLUME Ω: 30
P IN P OFF
INTELLIGENT I/O page
TV
VIDEO 1
VIDEO 2
VIDEO 3
VIDEO 4
1
REC OUT
SELECT
AUTO PROGRAM
MIDDLE EAST/ASIA
CATV W. EUROPE
AUSTRALIA
HK/UK
E. EUROPE/CHINA
AMERICA
CATV AMERICA
JAPAN
START PROGRAM:01
SELECT SET
PROGRAM LABEL
00 ----
01 ----
02 ----
03 ----
04 ----
05 ----
06 ----
07 ----
08 ----
09 ----
SELECT SET
VIDEO LABEL
VIDEO 1—VIDEO 1
VIDEO 2—VIDEO 2
VIDEO 3—VIDEO 3
VIDEO 4—VIDEO 4
SELECT SET
TEXT MEMORY
PROG PAGE
RED -- ---
GREEN -- ---
YELLOW -- ---
CYAN -- ---
SELECT SET

1-5. PRESETTING THE CHANNELS

Channel Allocation

Areas allocated in "MIDDLE EAST/ASIA" channel system
Afghanistan, Albania, Algeria, Austria, Bahrain, Bangladesh, Belgium, Brunei, Canary Islands, Cyprus, Denmark, Egypt, Finland, Germany, Ghana, Gibraltar, Greece, Iceland, India, Indonesia, Iran, Iraq, Italy, Jordan, Kenya, Republic of Korea, Kuwait, Lebanon, Liberia, Libya, Luxemburg, Malaysia, Malta, Mauritania, Mauritius, Maldives Rep., Morocco, Mozambique, Nepal, Netherlands, New Zealand, Nicaragua, Nigeria, Norway, Oman, Pakistan, Portugal, Qatar, Sarawak, Saudi Arabia, Seychelles, Sierra Leone, Singapore, Spain, Srilanka, Sudan, Swaziland, Sweden, Switzerland, Syrian Arab Rep., Tanzania, Thailand, Tunisia, Turkey, Uganda

Areas allocated in "CATV W. EUROPE" channel system
United Arab Emirates, Western Sahara, Yemen Arab Republic, People's Dem. Rep. of Yemen, Yugoslavia, Zambia, Zimbabwe

Areas allocated in "AUSTRALIA" channel system
Australia, New Zealand

Areas allocated in "HK/UK" channel system
Hong Kong, Ireland, Lesotho, South Africa, United Kingdom

Areas allocated in "E. EUROPE/CHINA" channel system
Benin, Bulgaria, China, Congo, Czechoslovakia, Djibouti Republic, Gabon, Guadeloupe, Guiana, Guinea (P.P.R.), Hungary, Ivory Coast, Dem. People's Rep. of Korea, Madagascar, Mongolia, New Caledonia, Niger, Poland, Reunion, Rumania, Senegal, Tahiti, Togo, Former U.S.S.R., Vietnam, Zaire

Areas allocated in "AMERICA" channel system
Bahama Islands, Barbados, Belize, Bermuda, Bolivia, Burma(UHF), Canada, Chile, Colombia, Costa Rica, Cuba, Dominica Republic, Ecuador, El Salvador, Guam, Guatemala, Haiti, Hawaii, Honduras, Jamaica, Laos, Mexico, Panama, Peru, Philippines, Puerto Rico, Surinam, Taiwan, Trinidad & Tobago, U.S.A., Venezuela

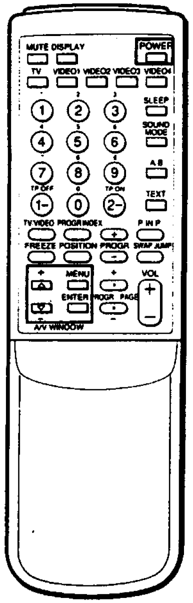
Areas allocated in "CATV AMERICA" channel system
U.S.A.(CATV)

Areas allocated in "JAPAN" channel system
Japan (UHF, VHF), Burma (Myanmar) (VHF)

TV and Color System of the Channel System

The TV system and color system are automatically set according to the channel system.

Channel system	TV system	Color system
MIDDLE EAST/ASIA	B/G, H; West European TV standard	AUTO
CATV W.EUROPE	B/G, H; West European TV standard	AUTO
AUSTRALIA	B/G, H; Australian TV standard	AUTO
HK/UK	I; British TV standard	AUTO
E.EUROPE/CHINA	D/K; East European TV standard	AUTO
AMERICA	M; American TV standard	AUTO
CATV AMERICA	M; American TV standard	AUTO
JAPAN	M; Japan TV standard	AUTO


MUTE
DISPLAY
POWER
TV
VIDEO1
VIDEO2
VIDEO3
VIDEO4
SLEEP
SOUND MODE
A/B
TEXT
TP OFF
TP ON
TV/VIDEO
PROGR INDEX
P IN P
FREEZE
POSITION
PROGR
SWAP/JUMP
MENU
ENTER
PROGR PAGE
VOL
A/V WINDOW

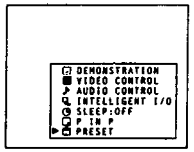
Preset Channels Automatically

Up to 30 receivable channels from the lowest channel are automatically preset in the consecutive program positions (1 to 29, 0).
With this method, you can preset all receivable channels at once.

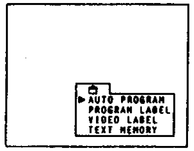
1 Press the POWER switch on the TV to turn on the TV.

2 Press MENU on the Remote Commander.

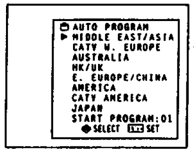
3 Move the red cursor to "PRESET" using Δ or ∇, then press ENTER.


DEMONSTRATION
VIDEO CONTROL
AUDIO CONTROL
INTELLIGENT I/O
SLEEP:OFF
P IN P
▶ PRESET

4 Move the red cursor to "AUTO PROGRAM" using Δ or ∇, then press ENTER.


▶ AUTO PROGRAM
PROGRAM LABEL
VIDEO LABEL
TEXT MEMORY

5 Move the red cursor to your channel system using Δ or ∇, according to the list on page 11, then press ENTER.
Presetting starts from program position 1. When presetting is finished, 1 (program number) appears.

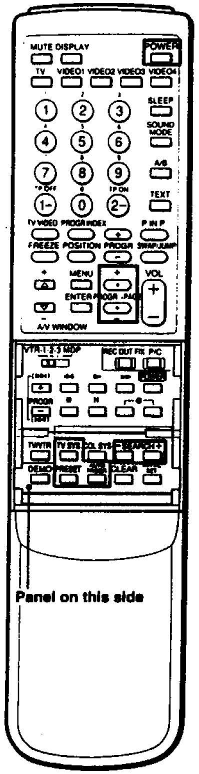

AUTO PROGRAM
▶ MIDDLE EAST/ASIA
CATV W. EUROPE
AUSTRALIA
HK/UK
E. EUROPE/CHINA
AMERICA
CATV AMERICA
JAPAN
START PROGRAM:01
SELECT
SET

Program and channel numbers

P01 C01 → P01 C02 → P02 C03 ---→ 1

If you want to start a program number other than 1
Before pressing ENTER in step 5, press PROGR +/– or the number button until the number you want appears at "START PROGRAM : _".

If you cannot use the Remote Commander
Use the MENU, ENTER, + and – buttons on the TV, and perform as above.


MUTE
DISPLAY
POWER
TV
VIDEO1
VIDEO2
VIDEO3
VIDEO4
SLEEP
SOUND MODE
A/B
TEXT
TP ON
TV/VIDEO
PROGR INDEX
P IN P
FREEZE
POSITION
PROGR
SWAP/JUMP
MENU
ENTER
PROGR PAGE
VOL
A/V WINDOW
VTR 1 2 3 MDP
REC OUT
FIX
P/C
PROGR
TV/VTR
TV SYS
COL SYS
SEARCH
DEMO
PRESET
AUTO PROGR
CLEAR
SET
Panel on this side

To preset the channels automatically without using the menu

1 Press the POWER switch of the TV to turn on the TV.

2 Press PRESET on the Remote Commander.

P01 C01

3 Select your channel system by pressing TV SYS, referring to "Channel Allocation" on page 11.

MIDDLE EAST/ASIA → CATV W. EUROPE → AUSTRALIA → HK/UK
↑
JAPAN ← CATV AMERICA ← AMERICA ← E.EUROPE/CHINA ←

4 Press AUTO PROGR.

P01 C01 → P01 C02 → P02 C03 ---→ 1

Preset Channels Manually

Use this method if there are only a few channels in your area to preset or if you want to preset channels one by one.

1 Press the POWER switch of the TV to turn on the TV.

2 Press PRESET on the Remote Commander.

P01 C01

3 Using the PROGR/PAGE + and – buttons, select the program position to which you want to preset a channel.

P03 C01

4 Select your channel system by pressing TV SYS.

MIDDLE EAST/ASIA → CATV W. EUROPE → AUSTRALIA → HK/UK
↑
JAPAN ← CATV AMERICA ← AMERICA ← E.EUROPE/CHINA ←

5 Tune in the channel, using the SEARCH +/– buttons.
The channel number starts counting up or downwards.
When a channel is found, it stops.

P03 C01

6 Repeat steps 3 to 5 to preset other channels.

7 Press PRESET.

3

1-6. ADDITIONAL PRESETTING FUNCTIONS

Skipping Program Positions

You can skip unused program positions when selecting programs with the PROGR/PAGE + and – buttons. However, the skipped programs may still be called up when you use the number buttons.

1 Press PRESET.

P01 C01

2 Select the program positicn using PROGR/PAGE + and – buttons.

P03 C01

3 Press CLEAR.

P03 C--

4 Press PRESET.

1

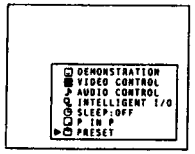
Repeat steps 1 to 4 to skip other program positions.

Captioning a Station Name

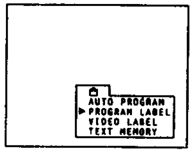
You can "name" a channel using up to four characters so that the name is displayed under the program number. Using this function, you can easily identify which channel you are watching.

1 Press MENU.

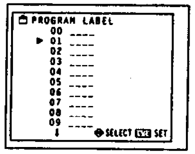
2 Move the red cursor to "PRESET" using Δ or ∇, then press ENTER.


DEMONSTRATION
VIDEO CONTROL
AUDIO CONTROL
INTELLIGENT I/O
SLEEP:OFF
P IN P
▶ PRESET

3 Move the red cursor to "PROGRAM LABEL" using Δ or ∇, then press ENTER.


AUTO PROGRAM
▶ PROGRAM LABEL
VIDEO LABEL
TEXT MEMORY

4 Move the red cursor to the program number you want using Δ or ∇, then press ENTER. The first underline of the selected program number turns red.


PROGRAM LABEL
00 ----
▶ 01 ----
02 ----
03 ----
04 ----
05 ----
06 ----
07 ----
08 ----
09 ----
SELECT
SET

5 Select a character using Δ or ∇, then press ENTER. The next underline turns red. Write character for each underline in the same way. If you do not want to write a character, press ENTER.

01 C___ → 01 C8__ → 01 C8S_

Usable characters: A to Z, 0 to 9, –, :, /, .(period), + and space

6 Repeat steps 4 and 5 to caption other program numbers.

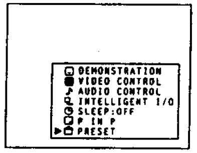
7 When you finished, press MENU.

Captioning a Video Input

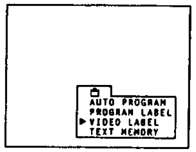
Using this function, you can identify the source (VHS, Beta, 8mm, Multi disc player, Tuner) of the video inputs, as the source is displayed under the video input.

1 Press MENU.

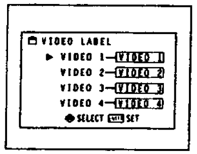
2 Move the red cursor to "PRESET" using Δ or ∇, then press ENTER.


DEMONSTRATION
VIDEO CONTROL
AUDIO CONTROL
INTELLIGENT I/O
SLEEP:OFF
P IN P
▶ PRESET

3 Move the red cursor to "VIDEO LABEL" using Δ or ∇, then press ENTER.


AUTO PROGRAM
PROGRAM LABEL
▶ VIDEO LABEL
TEXT MEMORY

4 Move the red cursor to the video input (1, 2, 3, 4) you want using Δ or ∇.


VIDEO LABEL
▶ VIDEO 1—VIDEO 1
VIDEO 2—VIDEO 2
VIDEO 3—VIDEO 3
VIDEO 4—VIDEO 4
SELECT
SET

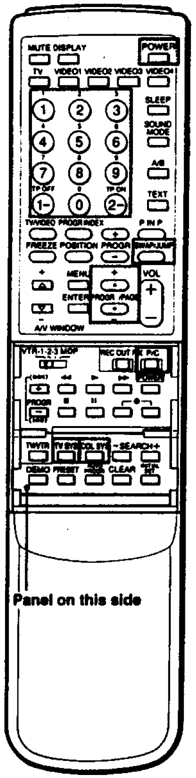
5 Press ENTER until the source name appears.

VIDEO 1 → VHS → BETA → 8mm → LD → TUNER

6 Repeat steps 4 and 5 for other video input.

7 When you finished, press MENU.

1-7. WATCHING THE TV



This section explains the basic functions you use while watching the TV.

Switching the TV on and off

Switching on
Press the POWER switch on the TV.

Switching off temporarily
Press POWER on the Remote Commander.
The TV enters standby mode and the standby indicator on the front of the TV lights up.

Switching on again
Press POWER, TV, PROGR/PAGE +/–, or one of the number buttons on the Remote Commander.
If you cannot use the Remote Commander, press PROGR +/– on the TV.

Switching off completely
Press the POWER switch on the TV.

Selecting TV Programs

Press PROGR/PAGE +/– or press number buttons.
To select program 5, press "5".
To select program 10, press "1–" "0".
To select program 25, press "2–" "5".

To return to the previous program number
Press JUMP. (This button functions as SWAP when the P IN P (see page 21) is displayed.)

If the sound is noisy or not heard
Press TV SYS until the sound becomes clear.

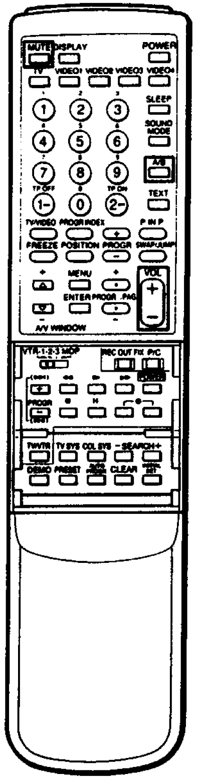
If the color program does not appear in color
Press COL SYS until the color becomes normal.

Selecting TV Program by Channel Number (not by program number)

See page 29 for the channel numbers.
1 Press P/C so that C-- appears.
2 While C-- is on, select the channel system by pressing TV SYS.
  The TV becomes channel tuning mode.
3 While C-- is on, press the channel number.
  To select channel 5, press "0", "5".
  To select channel 25, press "2", "5".

To skip channels
1 Press P/C so that C-- appears.
2 Select the channel number to be skipped using the number buttons or PROGR/PAGE +/– buttons.
3 Press CLEAR.
Repeat steps 1 to 3 to skip other channels.
To restore the skipped channel, tune in the channel and press PRESET.

To select TV programs by program number
1 Press P/C so that P-- appears.
2 While P-- is on, press the program number.

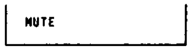


Adjusting the Volume

Press VOL +/–.

Muting the Sound

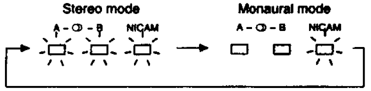
Press MUTE.



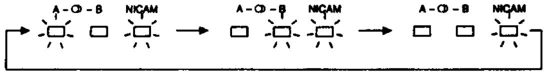
To resume normal sound, press MUTE again.

Receiving a Stereo or Bilingual Program

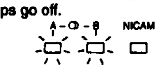
When the TV receives a NICAM stereo system program
The NICAM lamp, A and B mode lamps light. Press A/B to select stereo or monaural mode. If the signal is very weak, the sound becomes monaural. The NICAM, A and B mode lamps go off.



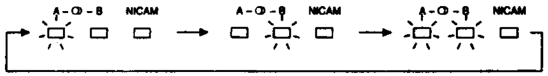
When the TV receives a NICAM bilingual system program
The NICAM lamp, A and/or B mode lamp(s) light. Press A/B so that the lamp (A or B) of the mode you want lights up.



When the TV receives a German stereo system program
The A and B mode lamps light. If the signal is very weak, the sound becomes monaural. The lamps go off.

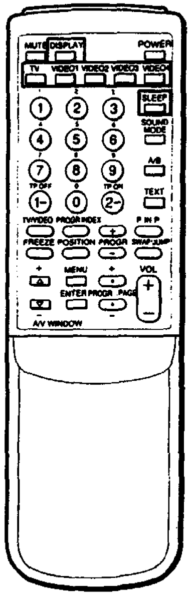


When the TV receives a German bilingual system program
A and/or B mode lamp(s) light(s). Press A/B so that the lamp (A, B, or A and B) of the mode you want lights up.



Who can receive the NICAM stereo/bilingual system
The NICAM stereo/bilingual system is receivable in Hong Kong, Singapore, New Zealand, etc.

Who can receive the German stereo/bilingual system
The German stereo/bilingual system is receivable in Australia, Malaysia, Thailand, etc.


MUTE
DISPLAY
POWER
TV
VIDEO1
VIDEO2
VIDEO3
VIDEO4
SLEEP
SOUND MODE
A/B
TEXT
TP OFF
TP ON
TV/VIDEO
PROGR INDEX
P IN P
FREEZE
POSITION
PROGR
SWAP/JUMP
MENU
VOL
ENTER
PROGR PAGE
A/V WINDOW

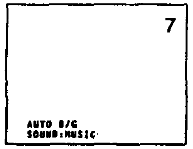
Watching Video Input

Using the VIDEO 1, VIDEO 2, VIDEO 3, and VIDEO 4 buttons, select the video input.
To go back to the normal TV picture, press TV.

When you select VIDEO 4
If "SELECT INPUT MODE" appears on the screen, press the VIDEO 4 INPUT/REC OUT button on the front panel of the TV to select INPUT (⇔).

On the TV
Press TV/VIDEO.

Displaying the On-screen Indications


7
AUTO B/G
SOUND:MUSIC

Press DISPLAY.
The program number, color and TV system setting and sound mode appear. They, except the program number, will disappear after some seconds.
Press again to make indications disappear.

In channel tuning mode (C--), channel number, channel system and sound mode appear.

Using the Sleep Timer

You can select the time period after which the TV automatically switches into standby mode.
Select the time period by pressing SLEEP.
The time period (in approximate minutes) changes as follows:

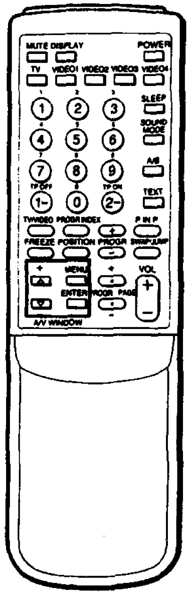
SLEEP OFF → SLEEP 30 → SLEEP 60 → SLEEP 90

About one minute before the TV switches into standby mode, "SLEEP" is displayed on the screen.

To switch off the sleep timer
Press SLEEP until "SLEEP OFF" appears.

To check the remaining time
Press SLEEP.
If you do not want to change the remaining time, leave it until it disappears automatically.

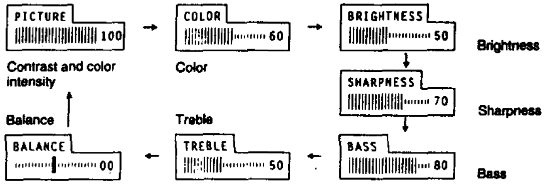
Setting the sleep timer using the menu or on the TV set
Use the MENU, ENTER, Δ and ∇ buttons on the Remote Commander or on the TV.
1 Press MENU.
2 Move the cursor to "SLEEP" using Δ or ∇.
3 Press ENTER until the time period you want appears at "SLEEP: __".


MUTE
DISPLAY
POWER
TV
VIDEO1
VIDEO2
VIDEO3
VIDEO4
SLEEP
SOUND MODE
A/B
TEXT
TP OFF
TP ON
TV/VIDEO
PROGR INDEX
P IN P
FREEZE
POSITION
PROGR
SWAP/JUMP
MENU
VOL
ENTER
PROGR PAGE
A/V WINDOW

Adjusting the Picture and Sound

Although the picture and sound are adjusted at the factory, you can adjust them to suit your own taste.

1 Select the item by pressing ENTER.

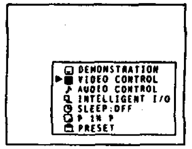

PICTURE 100
Contrast and color intensity
COLOR 60
Color
BRIGHTNESS 50
Brightness
SHARPNESS 70
Sharpness
BASS 80
Bass
TREBLE 50
Treble
BALANCE 00
Balance

2 Using Δ or ∇ button, adjust the item to your taste.

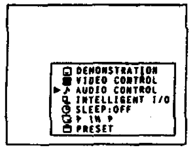
Adjusting the picture and sound using the menu or on the TV set
Use the MENU, ENTER, Δ and ∇ buttons on the Remote Commander or on the TV.

1 Press MENU.

2 To adjust the picture, move the red cursor to "VIDEO CONTROL" using Δ or ∇, then press ENTER.
To adjust the sound, move the red cursor to "AUDIO CONTROL" using Δ or ∇, then press ENTER.

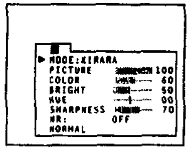

Video control

DEMONSTRATION
▶ VIDEO CONTROL
AUDIO CONTROL
INTELLIGENT I/O
SLEEP:OFF
P IN P
PRESET

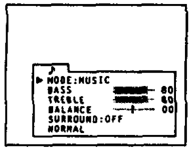

Audio control

DEMONSTRATION
VIDEO CONTROL
▶ AUDIO CONTROL
INTELLIGENT I/O
SLEEP:OFF
P IN P
PRESET

3 Move the red cursor to the item you want to adjust using Δ or ∇, then press ENTER.


Video control

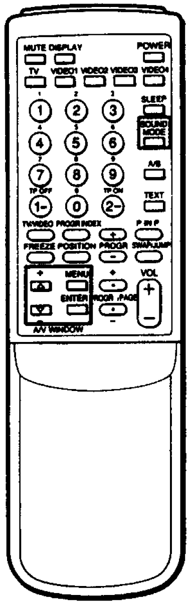
▶ MODE:KIRARA
PICTURE 100
COLOR 60
BRIGHT 50
HUE 00
SHARPNESS 70
NR: OFF
NORMAL


Audio control

▶ MODE:MUSIC
BASS 80
TREBLE 80
BALANCE 00
SURROUND:OFF
NORMAL

4 Adjust the item. (See the table on page 20.)

5 Press MENU to turn off the menu.



MUTE DISPLAY
POWER
TV
VIDEO1 VIDEO2 VIDEO3 VIDEO4
SLEEP
SOUND MODE
A/B
TEXT
TP OFF
TP ON
TV/VIDEO PROGR INDEX
P IN P
FREEZE POSITION PROGR SWAP/JUMP
MENU
VOL
ENTER PROGR /PAGE
A/V WINDOW

Effect of each control

Picture

Item	Press	Effect
MODE	ENTER	→ KIRARA → MIDDLE → SOFT
PICTURE	Δ/∇ → ENTER	Less More
COLOR	Δ/∇ → ENTER	Less More
BRIGHT	Δ/∇ → ENTER	Darker Brighter
HUE	Δ/∇ → ENTER	Greenish Reddish (for NTSC signal only)
NR[1]:	ENTER	→ OFF → ON
NORMAL	ENTER	"NORMAL" becomes red in a moment and the settings are reset to the factory preset levels.

1) Noise reduction. Set to ON when the picture is noisy because of a weak signal or tape deterioration.

Sound

Item	Press	Effect
MODE	ENTER	→ MUSIC → STANDARD → NEWS
BASS	Δ/∇ → ENTER	Less More
TREBLE	Δ/∇ → ENTER	Less More
BALANCE	Δ/∇ → ENTER	Left speaker Right speaker
SURROUND	ENTER	→ OFF → MUSIC[2] → MOVIE[3] → SPACE[4]
NORMAL	ENTER	"NORMAL" becomes red in a moment and the settings are reset to the factory preset levels.

2) MUSIC mode is effective for music programs.
3) MOVIE mode is effective for movie programs.
4) SPACE mode gives spacious monaural sound.

Notes

- When the menu is displayed, you cannot change the program using the number buttons. Use PROGR/PAGE +/–.
- When there is no signal, the screen is blue. However, the screen is noisy when the menu or the P IN P (see page 21) are displayed.

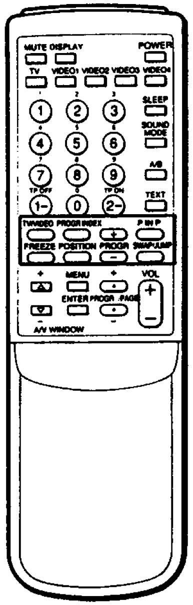
Selecting the Sound Mode

You can select a proper sound mode in accordance with the program.
Select the sound mode by pressing SOUND MODE.

→ MUSIC Music program: The high and low tones are emphasized.
↓
STANDARD Standard sound
↓
NEWS News program: The person's voice becomes easy to hear.

1-8. PICTURE IN PICTURE (P IN P)

Buttons for P IN P operation



MUTE DISPLAY
POWER
TV
VIDEO1 VIDEO2 VIDEO3 VIDEO4
SLEEP
SOUND MODE
A/B
TEXT
TP OFF
TP ON
TV/VIDEO PROGR INDEX
P IN P
FREEZE POSITION PROGR SWAP/JUMP
MENU
VOL
ENTER PROGR /PAGE
A/V WINDOW

With this function you can display a "P IN P screen" (small picture) within the main picture of TV program or video input. In this way you can watch or monitor TV program or the video input from any connected equipment while watching TV or other video input. For information about connection of other equipment, see page 25.

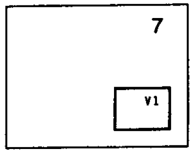
Switching P IN P on and off
Press P IN P.
The P IN P screen is displayed. The P IN P picture comes from the source chosen when the TV was last used.

To switch P IN P off
Press P IN P again.

Selecting a P IN P source
To select a TV program, use PROGR + and – buttons of the P IN P section.
To select a video input, press TV/VIDEO.

Each time you press TV/VIDEO, the indication at the top right corner of the P IN P screen changes:

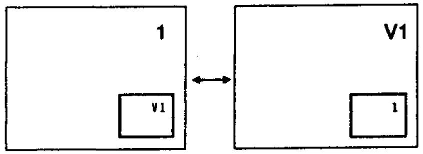
→TV program number → V1 → V2 → V3 → V4



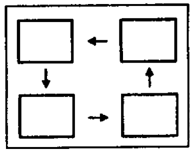
Notes

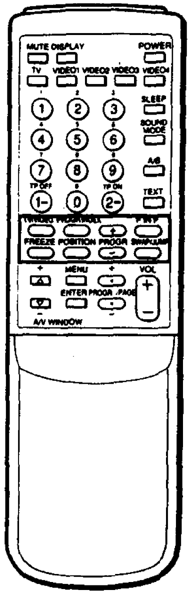
- If no video source has been connected, the P IN P screen is black.
- You may not be able to receive some channels in P IN P, even though they are being received for the main picture.
- If you display the signals for different color systems (PAL, SECAM, NTSC) for the main picture and in the P IN P, size of the P IN P may be different.
- If a TV channel in which no program is broadcast is received for the P IN P screen, the program number of P IN P may become black.

Swapping screens
Press SWAP.
The main screen switches the picture with the P IN P screen.



Changing the position of the P IN P
Press POSITION repeatedly to change the position of the P IN P screen. There are four different positions available.




MUTE DISPLAY
POWER
TV VIDEO1 VIDEO2 VIDEO3 VIDEO4
SLEEP
SOUND MODE
A/B
TEXT
TV/VIDEO PROGR INDEX P IN P
FREEZE POSITION PROGR SWAP/JUMP
MENU
VOL
ENTER PROGR PAGE
A/V WINDOW

Freezing the P IN P picture
Press FREEZE.
To restore the normal picture, press FREEZE again.

Note

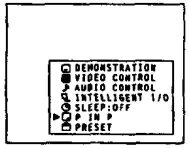
If you press FREEZE when there is no P IN P screen, the main picture is frozen and appears in the P IN P screen.

Checking the programs available
Press PROGR INDEX. The preset programs appear in the P IN P screen one by one in sequence.
To stop checking programs, press PROGR INDEX.

Operating P IN P using the menu or on the TV set
Use the MENU, ENTER, Δ and ∇ buttons on the Remote Commander or on the TV.

Using the menu, you can change the P IN P size and adjust the P IN P headphone volume to hear through the headphone besides the above operations.

1 Press MENU.
2 Move the red cursor to "P IN P" using Δ or ∇, then press ENTER.

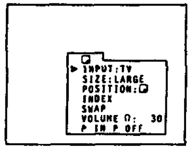

DEMONSTRATION
VIDEO CONTROL
AUDIO CONTROL
INTELLIGENT I/O
SLEEP:OFF
▶ P IN P
PRESET

3 Move the red cursor to the item you want to set using Δ or ∇, then press ENTER.

INPUT: → TV → VIDEO 1 → VIDEO 2 → VIDEO 3 → VIDEO 4 ⏎

SIZE: → SMALL → LARGE ⏎

POSITION: → ◲ → ◳ → ◰ → ◱ ⏎


▶ INPUT:TV
SIZE:LARGE
POSITION:
INDEX
SWAP
VOLUME Ω: 30
P IN P OFF

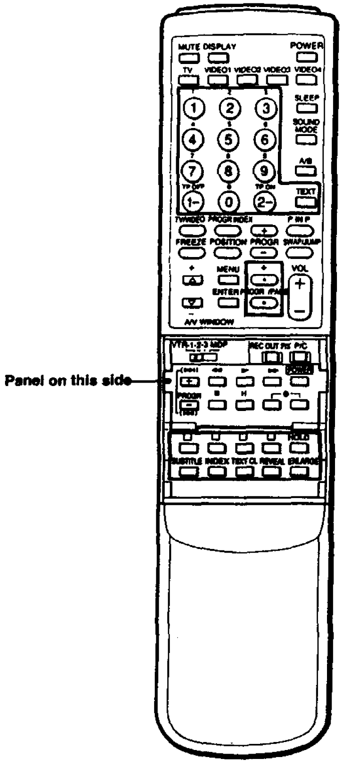
INDEX: Performed on the P IN P screen.
SWAP: Performed on the TV.
VOLUME: Adjust using Δ or ∇, then press ENTER.
P IN P OFF: The P IN P screen disappears.

Note

When you display a VTR picture at speeds other than normal speed, such as fast-forward playback, on the P IN P screen, the picture may be noisy depending on the VTR. The picture may be improved by selecting the "SMALL" size of the P IN P screen.

1-9. TELETEXT

Buttons for teletext operation


Panel on this side
MUTE DISPLAY
POWER
TV VIDEO1 VIDEO2 VIDEO3 VIDEO4
SLEEP
SOUND MODE
A/B
TEXT
P IN P
FREEZE POSITION PROGR SWAP/JUMP
MENU
VOL
ENTER PROGR PAGE
A/V WINDOW
VTR 1·2·3 MDP
REC OUT PIP P/C
HOLD
SUBTITLE INDEX TEXT CL REVEAL ENLARGE

TV stations broadcast an information service called Teletext via a TV channels. Teletext service allows you to receive various information pages such as weather reports or news at any time you want.

Switching Teletext on and off
1 Select the TV channels which carries the teletext broadcast you want to watch.
2 Press TEXT to switch on the teletext.
A teletext page will be displayed (usually the index page). If there is no teletext broadcast, P100 is displayed at the top left corner of the screen.

To switch Teletext off
Press TV.

Superimposing a Teletext page on the TV picture (MIX mode)
Press TEXT.
Each time you press TEXT, the screen changes:

→ Teletext → Teletext and TV → TV ⏎

Checking the contents of the Teletext
Press INDEX to have the overview of the contents of the teletext and page numbers.

Selecting a Teletext page
Use the number buttons to input the three digits of the page number you want to turn on.

If you have made a mistake, type in any three digits. Then re-enter the correct page number.

To access the next or preceding page, press PAGE + or PAGE –.

Holding a Teletext page
A teletext page may consists of several subpages. You can stop the page scrolling in order to read the text at your own pace.

Press HOLD.
The HOLD symbol " ⊞ " is displayed at the top left of the screen.
To resume normal teletext operation, press TEXT.

Enlarging the Teletext display
Press ENLARGE once to enlarge the upper half, twice to enlarge the lower half, and again to resume normal size.

Revealing concealed information
Sometimes pages contain concealed information, such as an answer to a quiz. The reveal option lets you disclose the information.

Press REVEAL.
To conceal the information, press REVEAL again.

Displaying subtitles
Press SUBTITLE.
To make the subtitle disappear, press SUBTITLE again.

Waiting for Teletext page while watching the TV program
After requesting a page, press TEXT CLEAR.
When the page is available, the page number is displayed at the top left corner of the screen.
Press TEXT to switch the teletext on.

Displaying Teletext page at predetermined time

1 Request a time coded page (e.g. alarm page).
2 Press TP ON.
"T∗∗∗∗" appears at the bottom of the screen.
3 Enter your request time of four digits using the number buttons. For example, if you enter 0730, the indication will become "T0730".
4 To watch the TV program, press TEXT CLEAR.
5 At the requested time, the page number is displayed at the top left corner of the screen.
To view the page, press TEXT.
To cancel the page, press TP OFF.

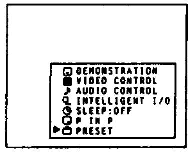
Using Fastext

With Fastext you can access pages with one key stroke.
When a Fastext page is broadcast, a color-coded menu will appear at the bottom of the screen. The colors of this menu correspond to the RED, GREEN, YELLOW and CYAN buttons on the Remote Commander.
Press the color button which corresponds to the color-coded menu. The page will be displayed after some seconds.

Switching to a Teletext page you want directly while watching a TV

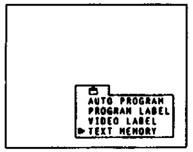
Using the menu, you can set teletext pages you want so that you can switch to the pages directly while watching a TV by pressing a color button.

To set the page
1 Press MENU.
2 Move the red cursor to "PRESET" using Δ or ∇, then press ENTER.



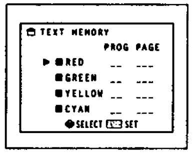
```
  DEMONSTRATION
■ VIDEO CONTROL
♪ AUDIO CONTROL
  INTELLIGENT I/O
  SLEEP:OFF
  P IN P
▶ PRESET
```

3 Move the red cursor to "TEXT MEMORY" using Δ or ∇, then press ENTER.



```
  AUTO PROGRAM
  PROGRAM LABEL
  VIDEO LABEL
▶ TEXT MEMORY
```

4 Move the red cursor to a color you want using Δ or ∇, then press ENTER.
The colors correspond to the color of the buttons.



```
 TEXT MEMORY
                PROG PAGE
 ▶ ■RED         --   ---
   ■GREEN       --   ---
   ■YELLOW      --   ---
   ■CYAN        --   ---
     ●SELECT      SET
```

5 Press the program number button and press ENTER.
For the program number 5, press "5".
For the program number 25, press "2—" and "5".
6 Press the page number button of three digits and press ENTER.
If you made a mistake, enter any three digits and then enter the correct three digits.
If you want to cancel the operation, press "9" for the first digit.
7 Repeat steps 4 to 6 for other pages.
8 Press MENU to return to the TV display.

To view the page, press the color button of the page while watching the TV.

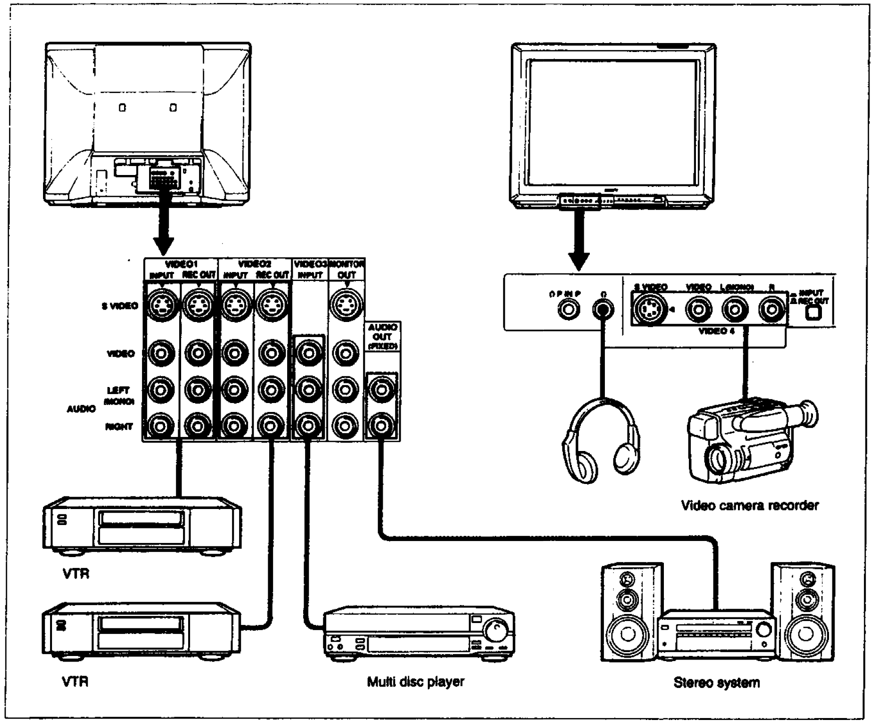
Note

The color buttons function as the FAST TEXT buttons in Teletext mode.

1-10. CONNECTING AND OPERATING OPTIONAL EQUIPMENT

You can connect optional audio/video equipment to this TV such as VTRs, multi disc players, and stereo systems.

After connection, select the video input and output (page 18).



If the picture or the sound is distorted
Move the VTR away from the TV.

S-video input (Y/C input)

Video signals may be separated into Y (luminance or brightness) and C (chrominance) signals. Separating the Y and C signals prevents them from interfering with one another, and therefore improves picture quality. This TV is equipped with two S-video input jacks through which these separated signals can be input directly.

Notes

- Only the PAL and NTSC signals can be input to the S-video jacks.
- The signals output from the S VIDEO REC OUT jacks are those input to the S VIDEO INPUT jacks. The signals input to the VIDEO jacks are not output from the S VIDEO REC OUT jacks.

If both S-video and video signals are input
The S-video input signal is selected. To view a video signal, disconnect the S-video connection.

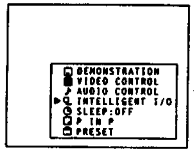
When connecting a monaural VTR
Connect only the white L (mono) jack on the TV.

1-11. SELECTING INPUT AND OUTPUT

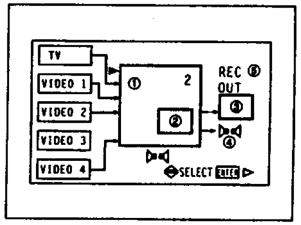
Using the INTELLIGENT I/O function, you can:
—record a source while watching the source.
—record a source while watching another source.
—record picture and sound from different sources.
—record a source while the TV is in standby mode.

Setting the INTELLIGENT I/O

1 Press MENU.
2 Move the red cursor to "INTELLIGENT I/O" using Δ or ∇, then press ENTER.


DEMONSTRATION
VIDEO CONTROL
AUDIO CONTROL
▶ INTELLIGENT I/O
SLEEP:OFF
P IN P
PRESET

3 Select the item using Δ or ∇, then press ENTER.
The color of the box or speaker mark becomes the color of the source selected.
① Select the source to watch on the TV.
② Select the source to be displayed on the P IN P screen.
③ Select the video to be recorded.
④ Select the sound to be recorded.
⑤ Make REC OUT in red or in white.
Red: The REC OUT FIX is on. The REC OUT FIX lamp lights. The recording source is fixed, therefore, even if you change the source to watch, the recording source does not change.
White: The REC OUT FIX is off. The REC OUT FIX lamp is off. The recording source changes accordingly when you change the source to watch.


TV
VIDEO 1
VIDEO 2
VIDEO 3
VIDEO 4
①
2
②
REC ⑤
OUT
③
④
SELECT
ENTER

4 Press MENU to go back to the normal TV picture.

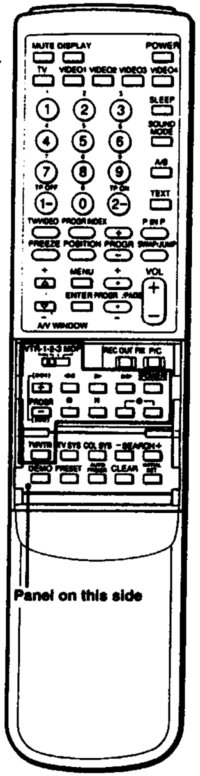
To change the program or video input after recording has started, or to turn off the TV (standby)
- If you did not make "REC OUT" in red on the INTELLIGENT I/O page (the REC OUT FIX lamp is not lit), press REC OUT FIX on the Remote Commander.
- If you made "REC OUT" in red (the REC OUT FIX lamp is lit), you do not need any operation.

When you set the INTELLIGENT I/O the next time
Make the "REC OUT" in white, if it is in red.

Notes
- After you started recording, do not turn off the TV by pressing the POWER switch on the TV. The recording stops.
- If you call the INTELLIGENT I/O page while watching the TV, the P IN P is displayed. To turn P IN P off, press P IN P.
- If you change TV program while recording a TV program, the newly selected TV program is recorded, even if you set the REC OUT FIX to on.

1-12. REMOTE CONTROL OF OTHER SONY EQUIPMENT

Buttons for VTR operation


MUTE
DISPLAY
POWER
TV
VIDEO1
VIDEO2
VIDEO3
VIDEO4
SLEEP
SOUND MODE
A/B
TEXT
TP OFF
TP ON
TV/VIDEO
PROGR INDEX
P IN P
FREEZE
POSITION
PROGR
SWAP/JUMP
MENU
VOL
ENTER
A/V WINDOW
VTR 1-2-3 MDP
REC OUT FIX
PIC
PROGR
TV/VTR
TV SYS
COL SYS
SEARCH
DEMO
PRESET
CLEAR
Panel on this side

You can use the TV Remote Commander to control other remote-controlled video equipment such as: Beta, 8mm, VHS VTRs or multi disc players.

Tuning the Remote Commander to the equipment
1 Set the VTR 1-2-3-MDP selector according to the equipment you want to control.
VTR 1: Beta or ED Beta VTR
VTR 2: 8mm VTR
VTR 3: VHS VTR
MDP: Multi disc player

2 Use the buttons indicated in the illustration to operate the additional equipment.

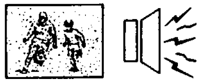
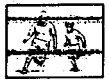
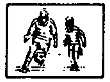
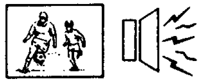
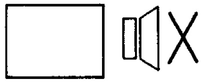
If your video equipment is furnished with a COMMAND MODE selector: set this selector to the same position as the VTR 1-2-3-MDP selector on the TV Remote Commander.

If the equipment does not have a certain function, the corresponding button on the Remote Commander will not operate.

When recording
When you use the ● (record) button, make sure to press these two buttons simultaneously.

1-13. TROUBLESHOOTING

If you have any problem, check the countermeasure for each symptoms listed below.
If the problem persists, contact your nearest authorized service center or dealer.

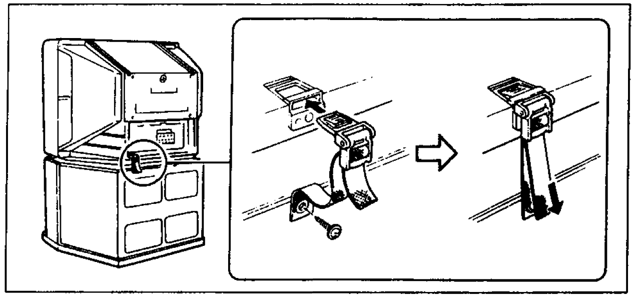
Symptom		Countermeasure
Snowy picture Noisy sound		• Check the antenna. • Check the antenna connection on the TV and on the wall. • Check the DX/LOCAL switch. Set it to DX.
Dotted lines or stripes		This may be caused by local interference (e.g. cars, neon signs, hair dryers, etc.). Adjust the antenna for minimum interference.
Double images or "ghosts"		This may be caused by reflections from nearby mountains or buildings. A highly directional antenna may improve the picture.
Good picture Noisy sound		• Check the TV SYS setting.
No picture No sound		• Press POWER. • Check the antenna connection.
Good picture No sound		• Press VOLUME +. • Press MUTE.
No color		• Check the COL SYS setting.
The picture disappears and the screen turns blue.		The signal is too weak to be received properly. A highly directional antenna may improve the picture.
C-- appears when you press a program number.		Press P/C so that P-- appears. While P-- is on, press the program number.

1-14. PREVENTING THE TV FROM FALLING

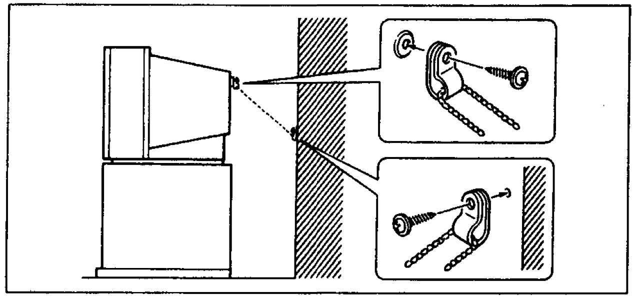
Because the front is heavier than the back, the TV may fall if it is not level, or a child pushes or climbs on it. To avoid such an accident, stabilize your TV using the supplied accessories.

When you use the SU-S34 or SU-S29 AV rack (not supplied)
Stabilize the TV referring to the instructions of the rack.

When you use a TV stand other than the SU-S34 or SU-S29
Attach the supplied band to the TV stand using the supplied screw. Set the buckle into the slot and pull down the belt.

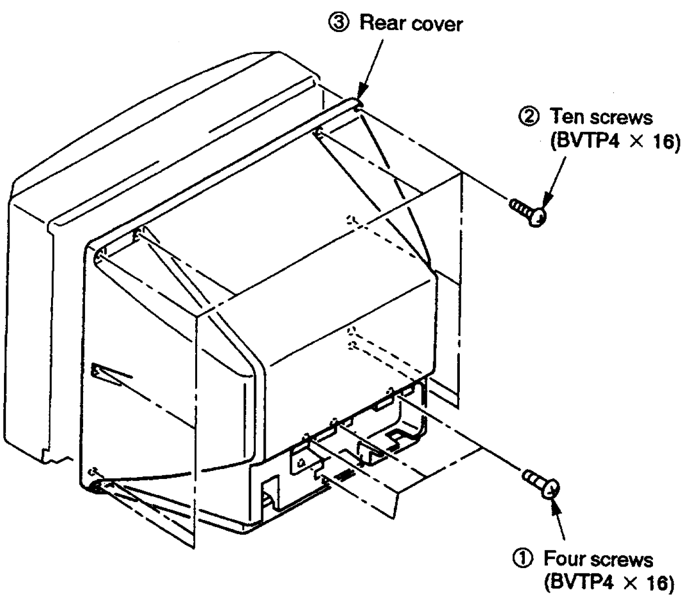


When you stabilize the TV against a wall or piller
Attach the supplied clamps to the hole on the rear of the TV and to the wall or piller using the supplied screws. Pass a cord or chain with sufficient srength (not supplied) through the clamps.

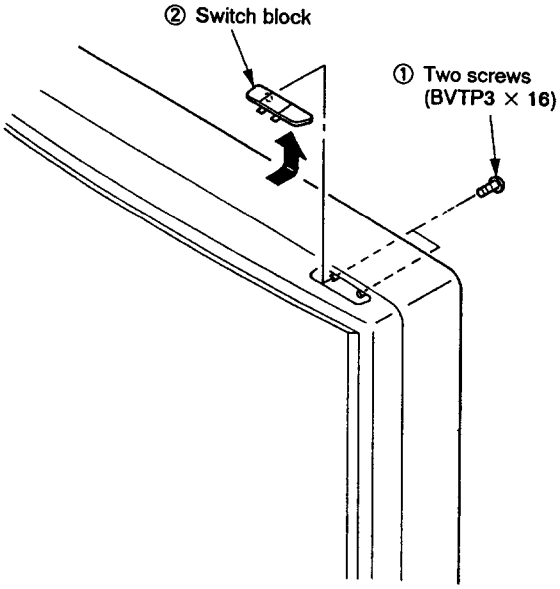


SECTION 2
DISASSEMBLY

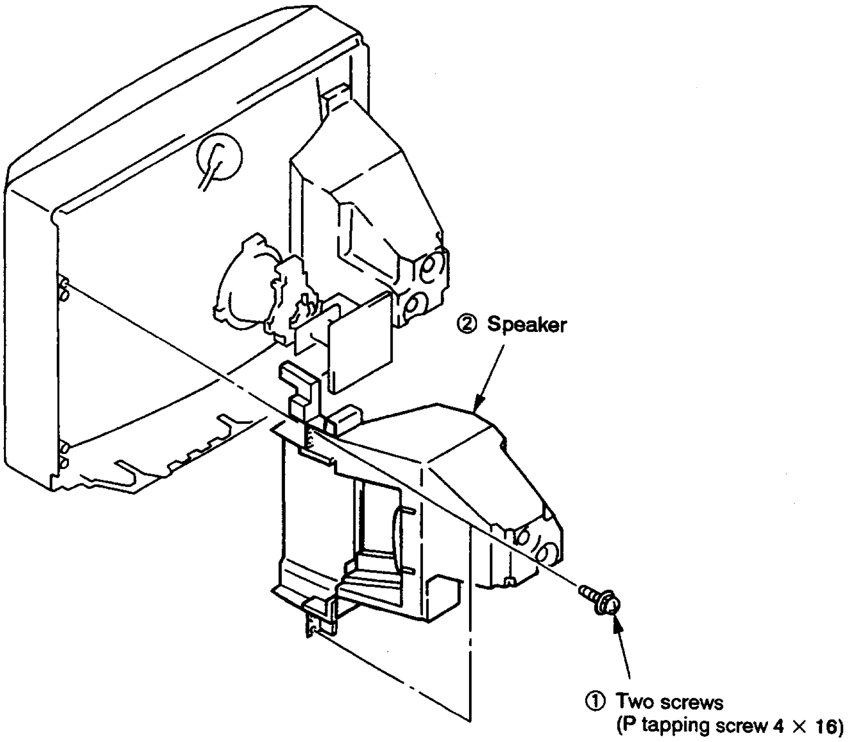
2-1. REAR COVER REMOVAL


③ Rear cover
② Ten screws
(BVTP4 × 16)
① Four screws
(BVTP4 × 16)

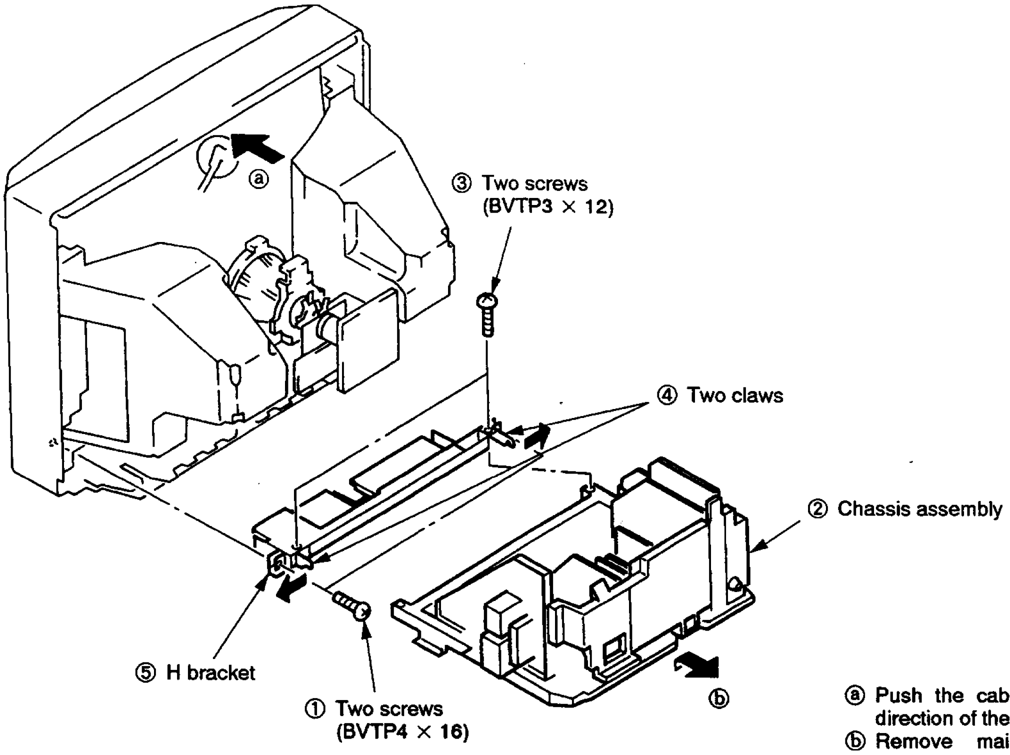
2-2. SWITCH BLOCK REMOVAL


② Switch block
① Two screws
(BVTP3 × 16)

2-3. SPEAKER REMOVAL

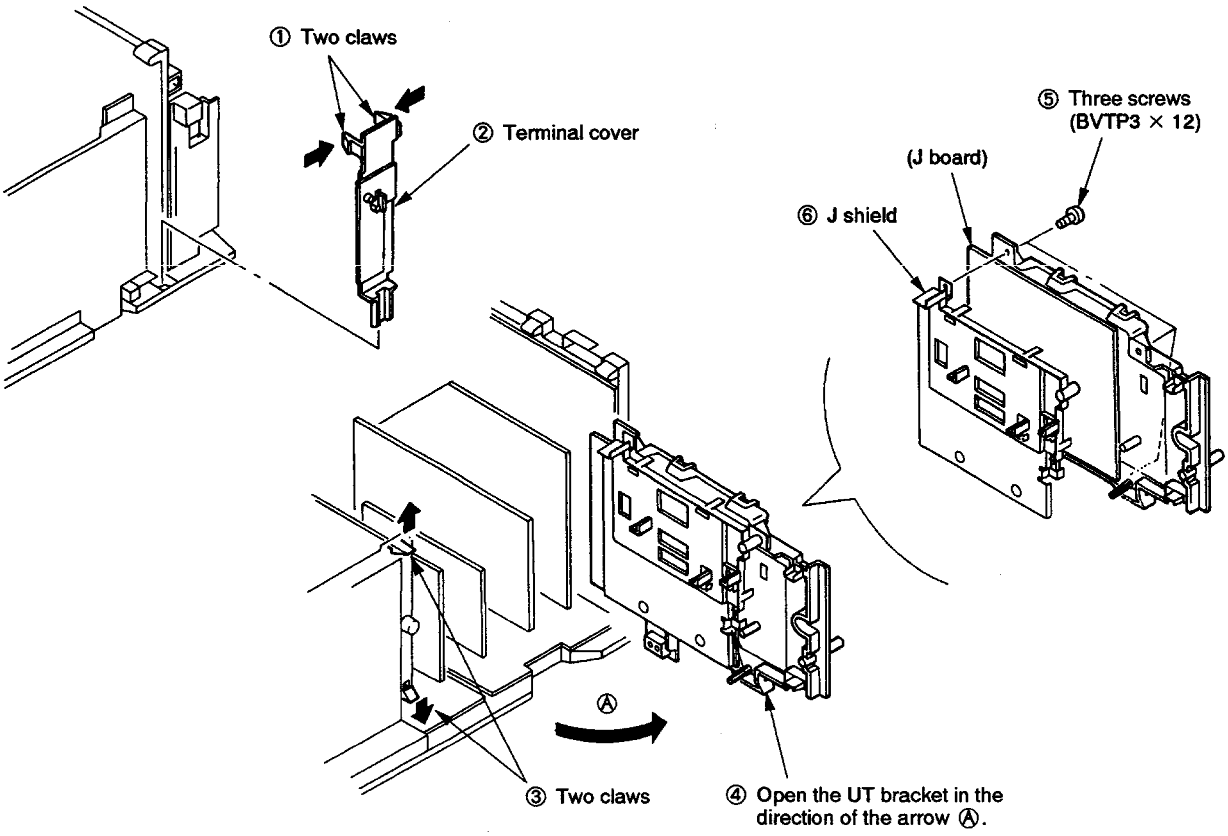

② Speaker
① Two screws
(P tapping screw 4 × 16)

2-4. CHASSIS ASSEMBLY AND H BRACKET REMOVAL

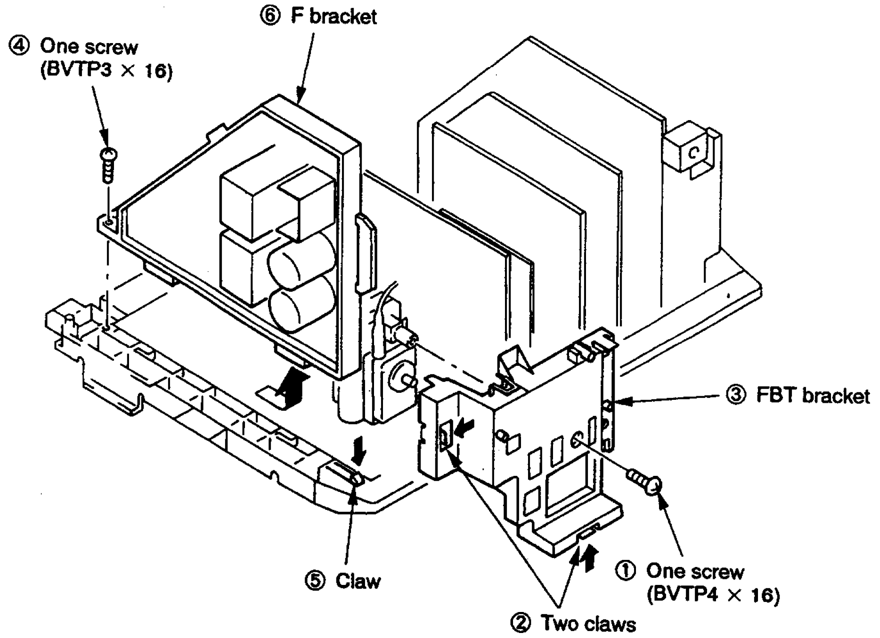

ⓐ
③ Two screws (BVTP3 × 12)
④ Two claws
② Chassis assembly
⑤ H bracket
① Two screws (BVTP4 × 16)
ⓑ

ⓐ Push the cabinet in the direction of the arrow.
ⓑ Remove main chassis assembly in the direction of the arrow.

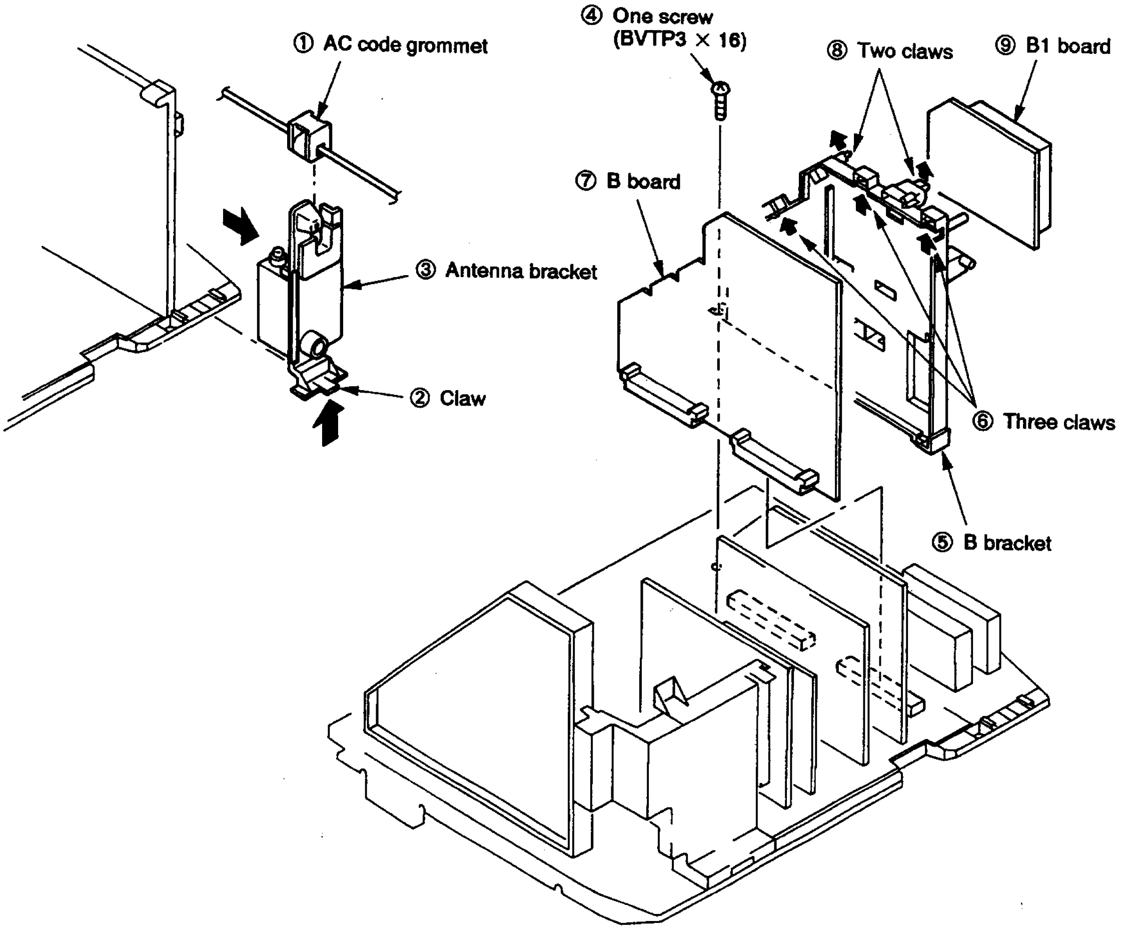
2-5. J BRACKET REMOVAL


① Two claws
② Terminal cover
⑤ Three screws (BVTP3 × 12)
(J board)
⑥ J shield
Ⓐ
③ Two claws
④ Open the UT bracket in the direction of the arrow Ⓐ.

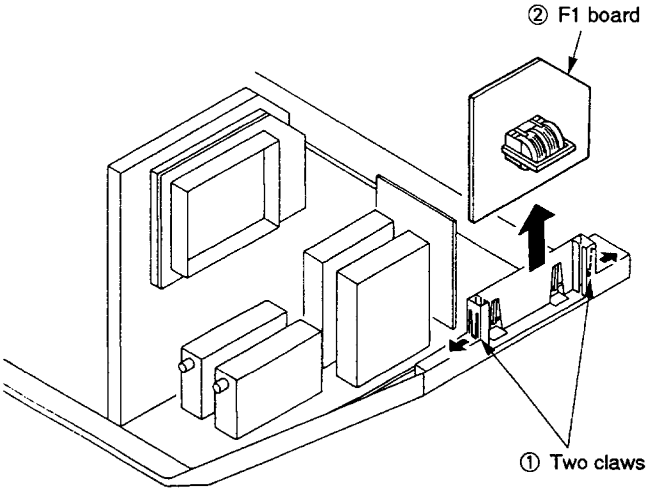
2-6. F BRACKET REMOVAL


⑥ F bracket
④ One screw
(BVTP3 × 16)
③ FBT bracket
⑤ Claw
① One screw
(BVTP4 × 16)
② Two claws

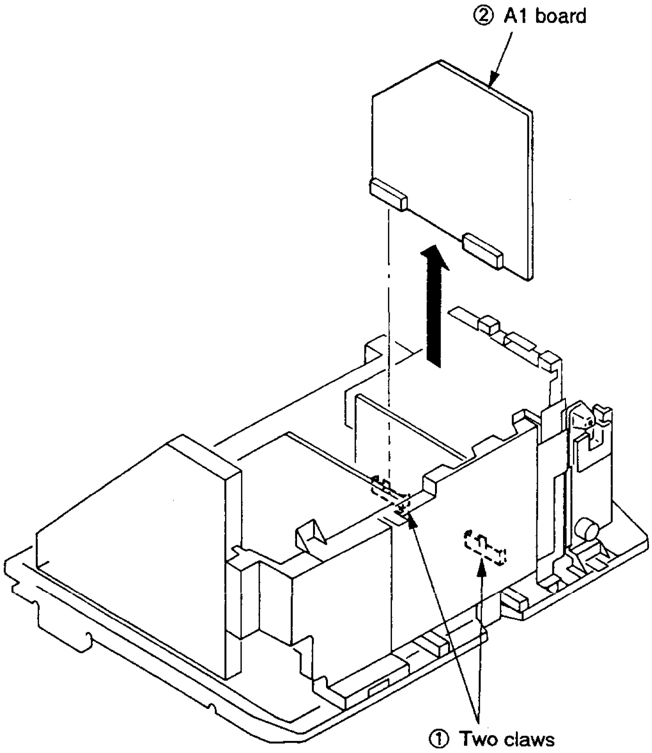
2-7. B AND B1 BOARDS REMOVAL


① AC code grommet
④ One screw
(BVTP3 × 16)
⑧ Two claws
⑨ B1 board
⑦ B board
③ Antenna bracket
② Claw
⑥ Three claws
⑤ B bracket

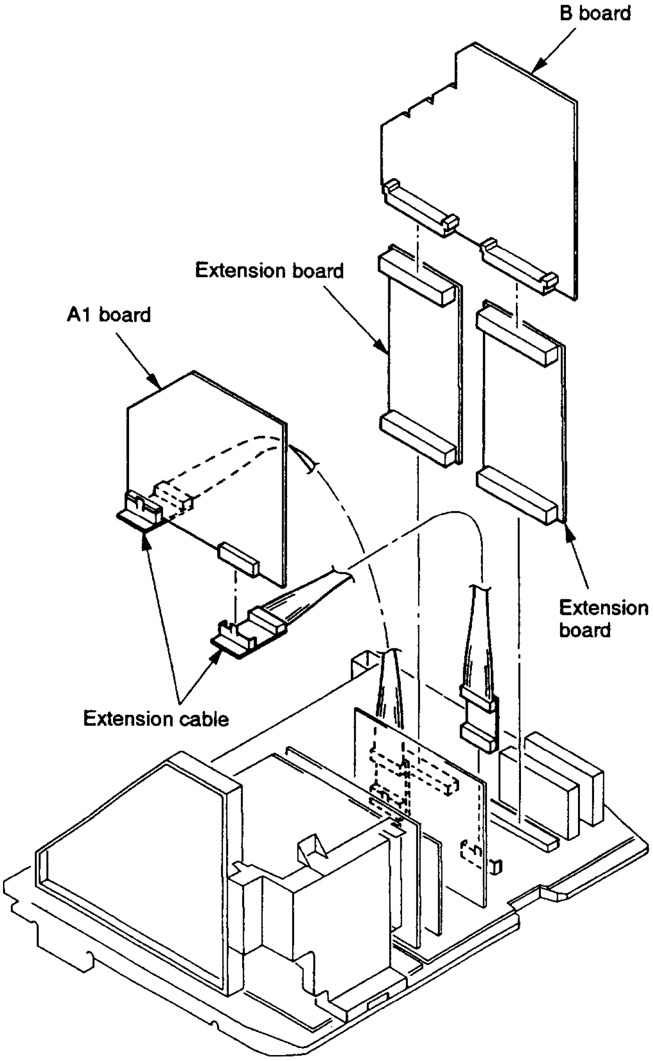
2-8. F1 BOARD REMOVAL


② F1 board
① Two claws

2-9. A1 BOARD REMOVAL


② A1 board
① Two claws

2-10. EXTENSION CABLE AND BOARD

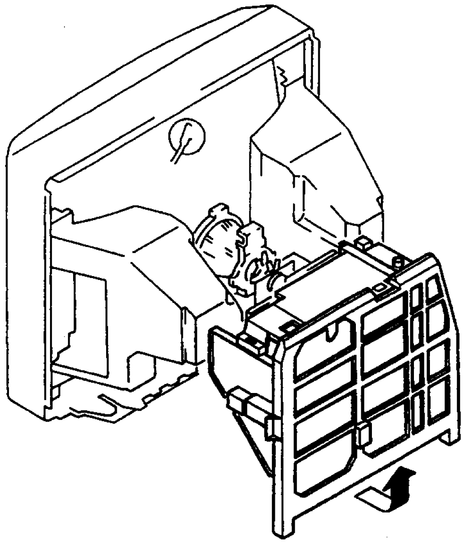

B board
Extension board
A1 board
Extension board
Extension cable

- **EXTENSION CABLES AND EXTENSION BOARDS LIST**

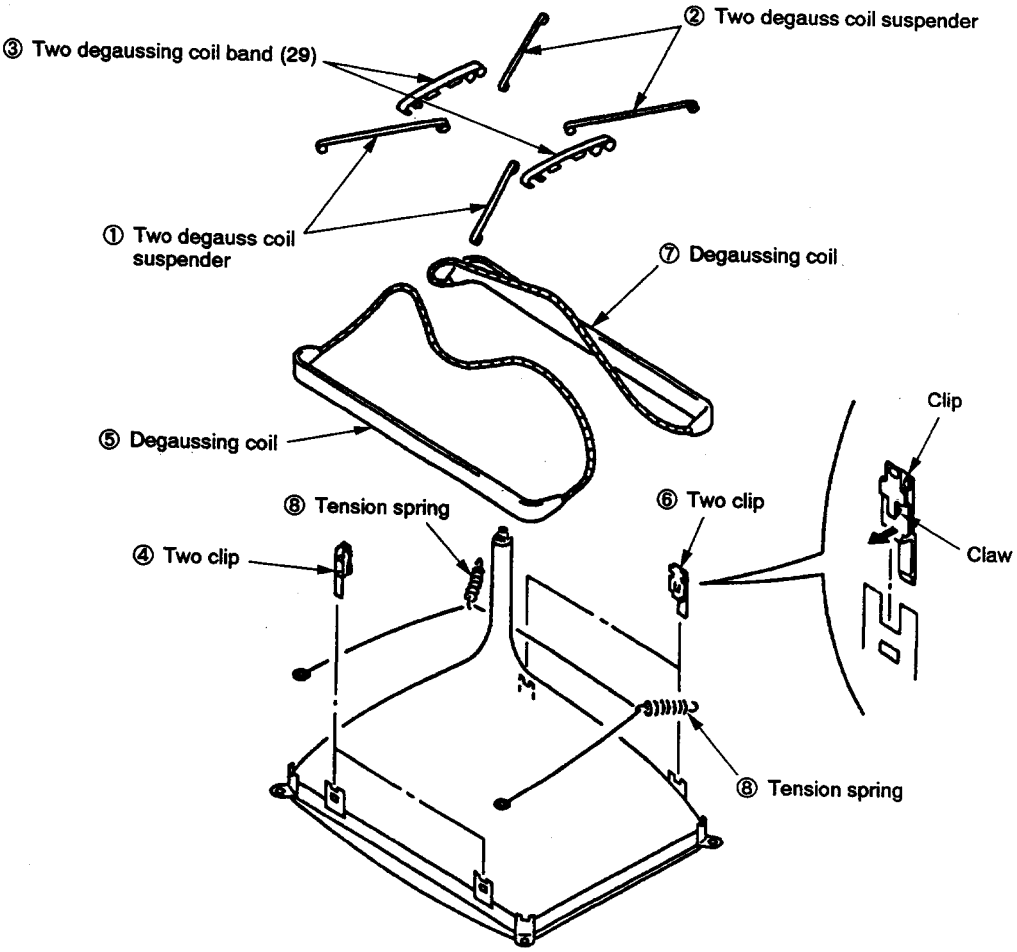
B board	3-702-556-01	50P	2
V board	3-702-108-01	10P	1
A1 board	3-702-564-01	11P	2
BP board	3-702-564-01	11P	1
	3-702-565-01	15P	1
S board	3-702-565-01	15P	1
D1 board	3-702-563-01	10P	2
VC board	3-702-563-01	10P	1

2-11. SERVICE POSITION

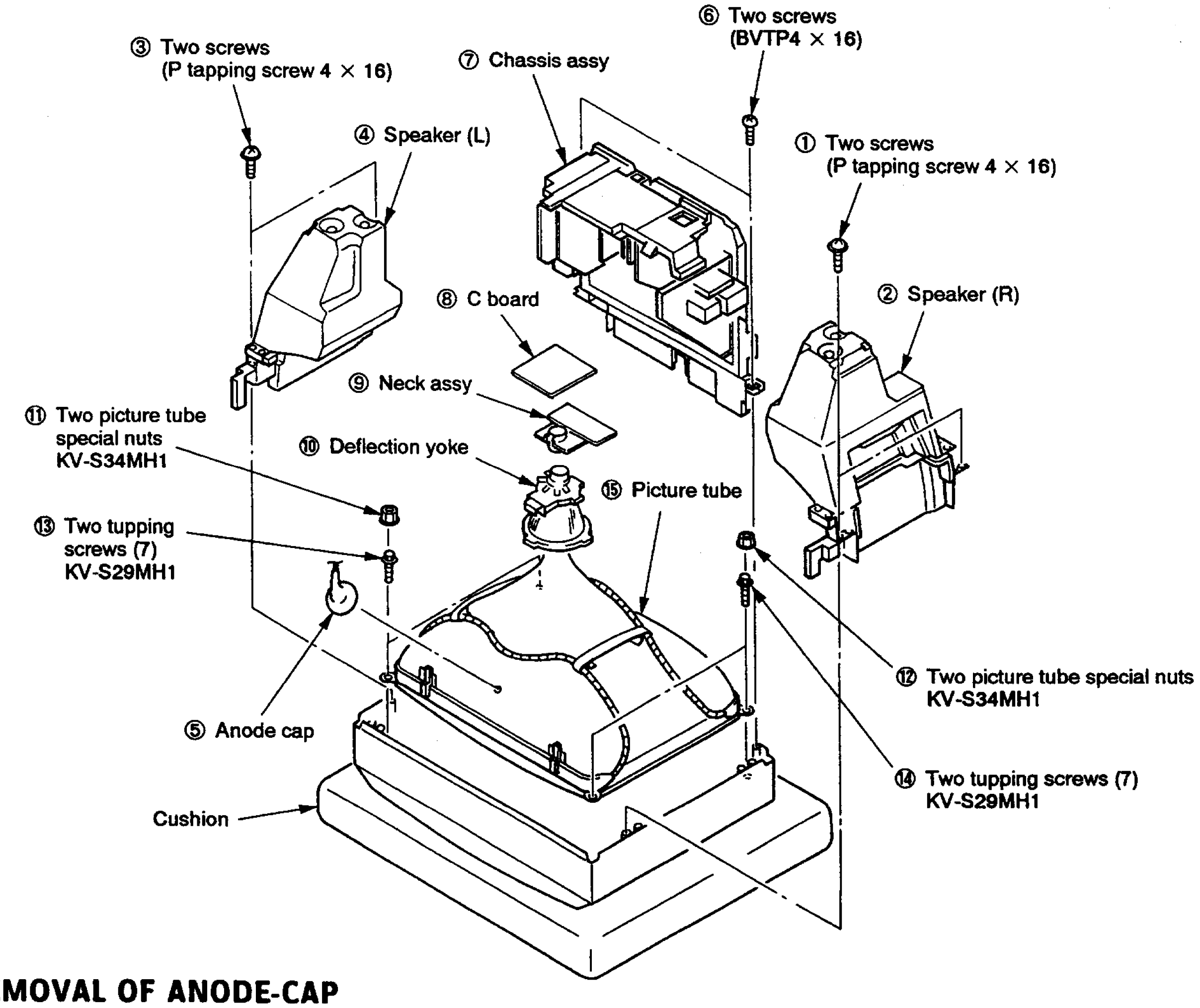
※ Remove the H bracket from the main chassis assy and then perform the following servicing.
(Refer to 2-4. CHASSIS ASSY AND H BRACKET REMOVAL)



2-12. DEGAUSSING COIL REMOVAL


② Two degauss coil suspender
③ Two degaussing coil band (29)
① Two degauss coil suspender
⑦ Degaussing coil
Clip
⑤ Degaussing coil
⑧ Tension spring
⑥ Two clip
Claw
④ Two clip
⑧ Tension spring

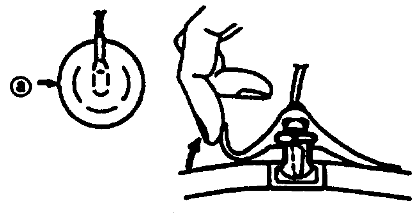
2-13. PICTURE TUBE REMOVAL


⑥ Two screws (BVTP4 × 16)
③ Two screws (P tapping screw 4 × 16)
⑦ Chassis assy
④ Speaker (L)
① Two screws (P tapping screw 4 × 16)
⑧ C board
② Speaker (R)
⑨ Neck assy
⑪ Two picture tube special nuts KV-S34MH1
⑩ Deflection yoke
⑮ Picture tube
⑬ Two tupping screws (7) KV-S29MH1
⑫ Two picture tube special nuts KV-S34MH1
⑤ Anode cap
⑭ Two tupping screws (7) KV-S29MH1
Cushion

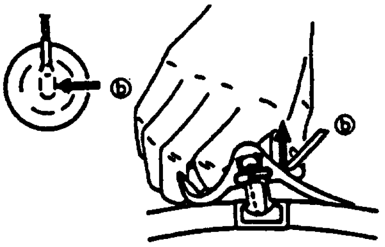
• REMOVAL OF ANODE-CAP

NOTE : Short circuit the anode of the picture tube. and the anode cap to the metal chassis, CRT chield or carbon painted on the CRT, after removing the anode.

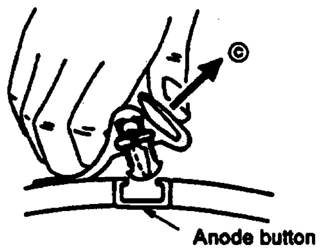
• REMOVING PROCEDURES



① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ.



② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ.


ⓒ
Anode button

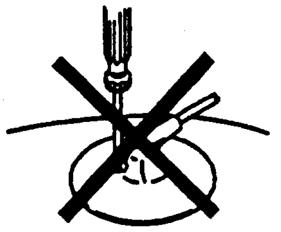
③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ⓒ.

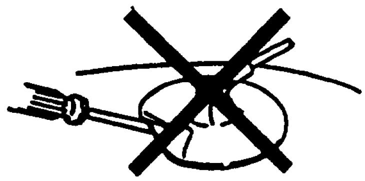
• HOW TO HANDLE AN ANODE-CAP

① Don't hurt the surface of anode-caps with sharp shaped material!

② Don't press the rubber hardly not to hurt inside of anode-caps!
A material fitting called as shatter-hook terminal is built in the rubber.

③ Don't turn the foot of rubber over hardly!
The shatter-hook terminal will stick out or hurt the rubber.





SECTION 3

SET-UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there is specific instruction to the contrary, carry out these adjustments with the rated power supply.
- Unless there is specific instruction to the contrary, set the controls and switches this way :

◑ Contrast .... 80% (or remote control normal)
☼ Brightness 50%

- Carry out the following adjustments in this order :

1. Beam landing
2. Convergence
3. Focus
4. White balance

Note: Testing equipment required.

1. Color bar/pattern generator
2. Degausser
3. DC power supply
4. Digital multimeter
5. Oscilloscope

Preparations :

- In order to reduce the influence of geomagnetism on the set's picture tube face it east or west.
- Switch on the set's power and degauss with the degausser.

3-1. BEAM LANDING

1. Input the white signal with the pattern generator.
   Contrast } normal
   Brightness }
2. Position neck assy as shown in Fig.3-3.
3. Set the pattern generator raster signal to red.
4. Move the deflection yoke to the rear and adjust with the purity control so that the red is at the center and the blue and the green take up equally sized areas on each side. (See Fig.3-1, 3-2, 3-4)
5. Move the deflection yoke forward and adjust so that entire screen is red. (See Fig.3-1)
6. Switch the raster signal to blue, then to green and verify the condition.
7. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
8. If the beam does not land correctly in all the corners, use a magnet to adjust it. (See Fig.3-5)

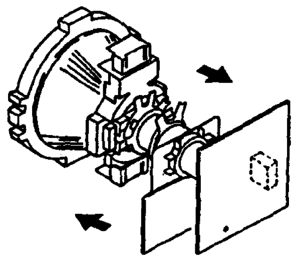


Fig.3-1

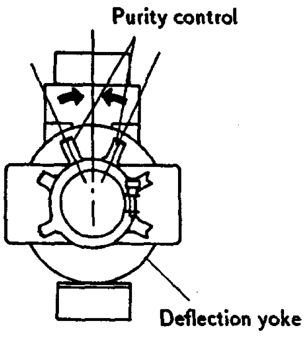

Purity control
Deflection yoke

Fig.3-2

Fig.3-3

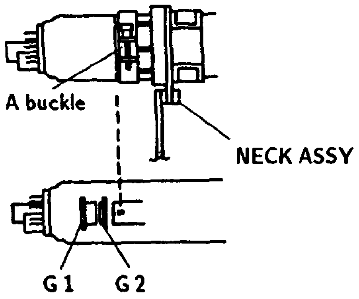
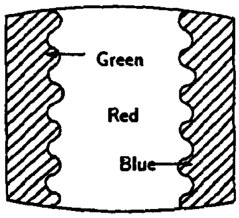

A buckle
NECK ASSY
G1
G2

Fig.3-4


Green
Red
Blue

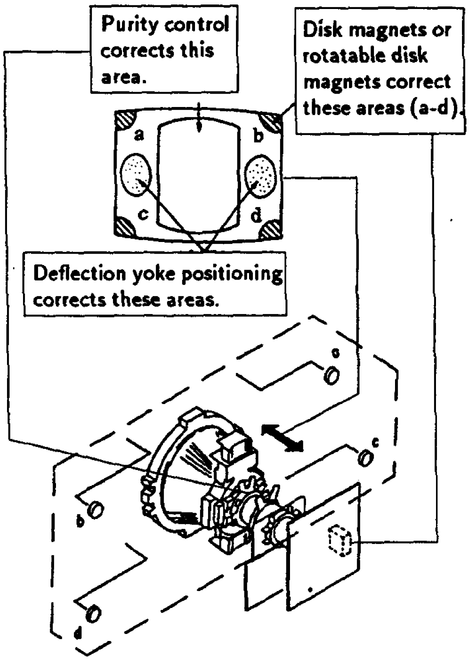

Purity control corrects this area.
Disk magnets or rotatable disk magnets correct these areas (a-d).
a
b
c
d
Deflection yoke positioning corrects these areas.
a
b
c
d

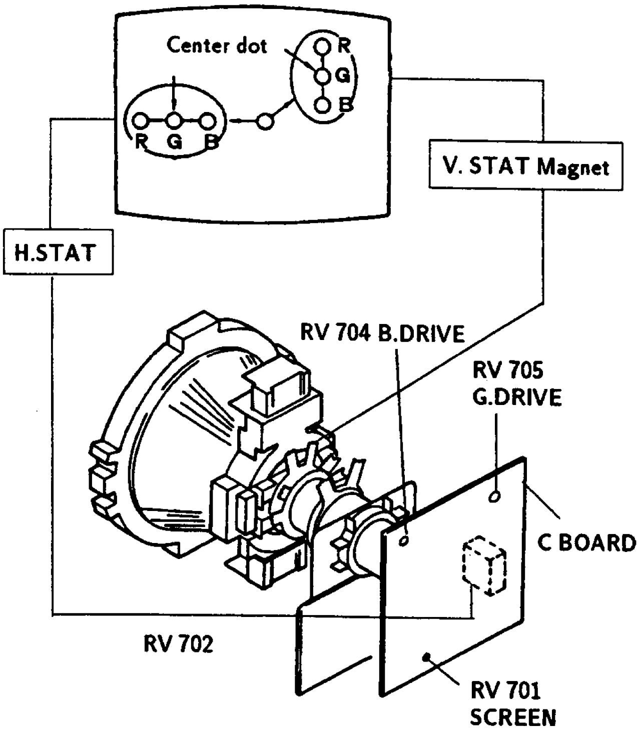
Fig.3-5

3-2. CONVERGENCE

Preparations :

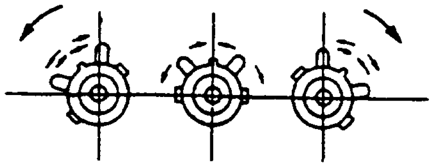
- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide dot pattern.

(1) Horizontal and vertical static convergence



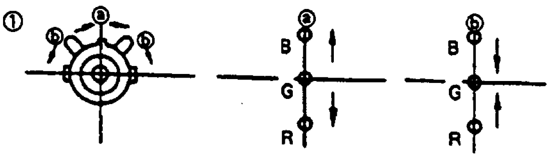
1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
3. If the H.STAT variable resistor cannot bring the red, green, and blue points together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V. STAT magnet in the manner given below.
(In this case, the H.STAT variable resistor and the V.STAT magnet influence each other)

- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.

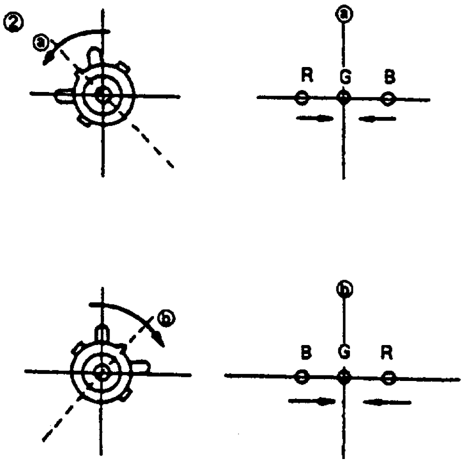


4. If the V.STAT magnet is moved in the direction of the ⓐ and ⓑ arrows, the red, green, and blue points move as shown below.

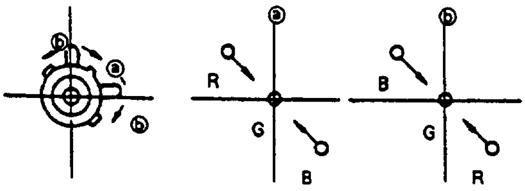
①



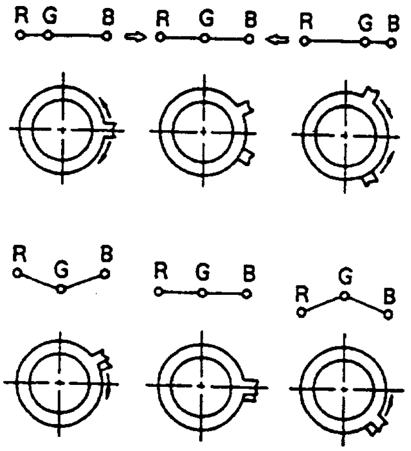
②

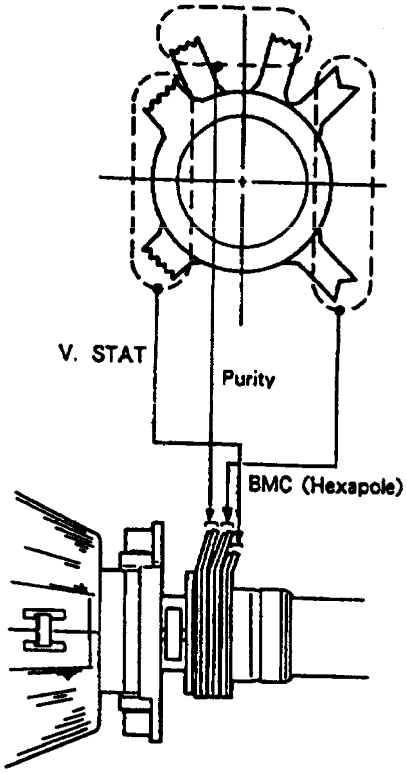


③



- Operation of BMC (Hexapole) Magnet


R G B
R G B
R G B
R G B
R G B
R G B


V. STAT
Purity
BMC (Hexapole)

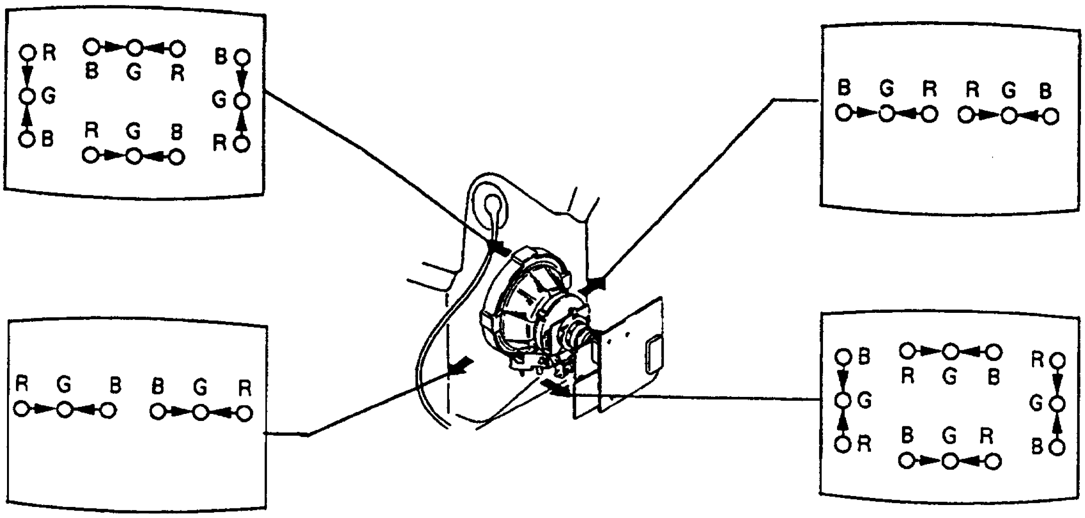
- The respective dot positions resulting from moving each magnet interact, so be sure to perform adjustment while tracking.
  Use the H.STAT VR to adjust the red, green, and blue dots so they coincide at the center of screen (by moving the dots in the horizontal direction).

(2)Dynamic convergence adjustment

Preparations :

- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.

1. Slightly loosen the deflection yoke screws.
2. Remove the deflection yoke spacer.
3. Move the deflection yoke as shown in the figure below and optimize the convergence.
4. Tighten the deflection yoke screws.
5. Install the deflection yoke spacer.


R G B
B G R
B G R
R G B
B G R R G B
R G B B G R
B G R
R G B
R G B
B G R

(3)Dynamic convergence adjustment

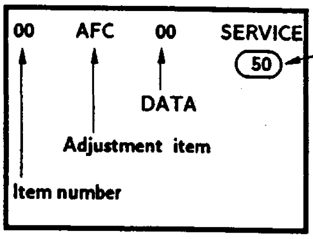
1. Adjust horizontal convergence located at the center position of the screen with H STAT VR.
2. Dynamic convergence adjustments are made with the RM-821 that comes with this unit.

Entering service mode

With the unit on standby
⇩
"DISPLAY"
⇩
"5"
⇩
"VOL(+)"
⇩
"POWER"

This operation sequence puts the unit into service mode.

The screen display is :


00
AFC
00
SERVICE
50
DATA
Adjustment item
Item number

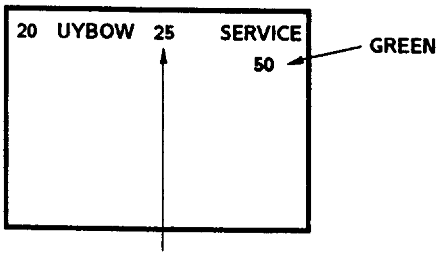
Depens on the signals.
PAL, SECAM : 50
NTSC : 60

"1", "4"	Raise/lower the service item number
"3", "6"	Raise/lower the data
"MUTE"	Writes
"0"	Executes the writing

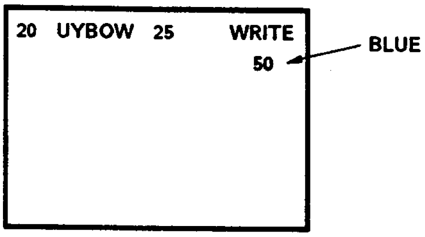
Item Number 20

This explanation uses UYBOW as an example.

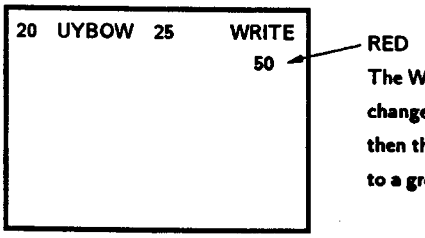
1. Select 20 UYBOW with the "1" and "4" buttons.
2. Raise/lower the data with the "3" and "6" buttons.
3. Select the optimum stste.
4. Write with the MUTE button. (The display changes to blue WRITE.)
5. Execute the writing with the "0" button. (The WRITE display changes briefly to red.)


20 UYBOW 25
SERVICE
50
GREEN

Adjusted with "3" and "6" buttons


20 UYBOW 25
WRITE
50
BLUE

Written with "MUTE"


20 UYBOW 25
WRITE
50
RED

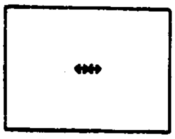
The WRITE display changes briefly to red, then the display returns to a green SERVICE.

Write excuted with "0"

"1", "4" Select the adjustment item.
↓
"3", "6" Raise/lower the data.
↓
"MUTE" Writes.
↓
"0" Executes the writing.

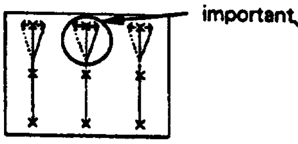
LABSAL	Display	Standerd		50/60	Remarks
		50	60		
19	DSHFT	0 C	0 C	o	DC SHIFT (CXA 1526)
20	UYBOW	25	25	o	U.Y.BOW (CXA 1526)
21	LYBOW	25	25	o	L.Y.BOW (CXA 1526)
22	H.AMP	1 F	1 F	o	H.AMP (CXA 1526)
23	H.TILT	1 F	1 F	o	H.TILT (CXA 1526)
24	UCBOW	1 F	1 F	o	U.C.BOW (CXA 1526)
25	UTILT	1 F	1 F	o	U.TILT (CXA 1526)
26	LCBOU	1 F	1 F	o	L.C.BOW (CXA 1526)
27	LTILT	1 F	1 F	o	L.TILT (CXA 1526)

R.G.B.dots movement on the screen of the set



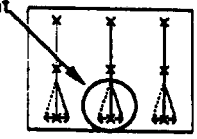
DC SHIFT

Fine adjustment of H STAT



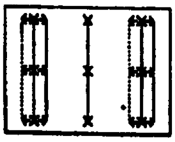
UPPER Y BOW

Adjustment of Y BOW of the upper section of the screen.



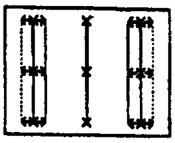
Standerd **LOWER Y BOW**

Adjustment of Y BOW of the lower section of the screen.



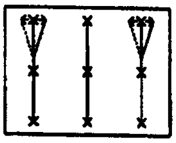
H AMP

H AMP adjustment



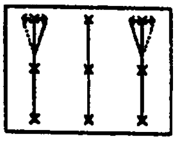
H TILT

H TILT adjustment



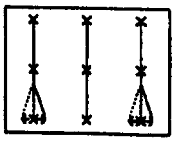
UPPER COR BOW

Adjustment of C BOW of the ower section of the screen.



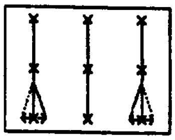
UPPER TILT

Adjustment of TILT of the lower section of the screen.



LOWER COR BOW

Adjustment of C BOW of the lower section of the screen.



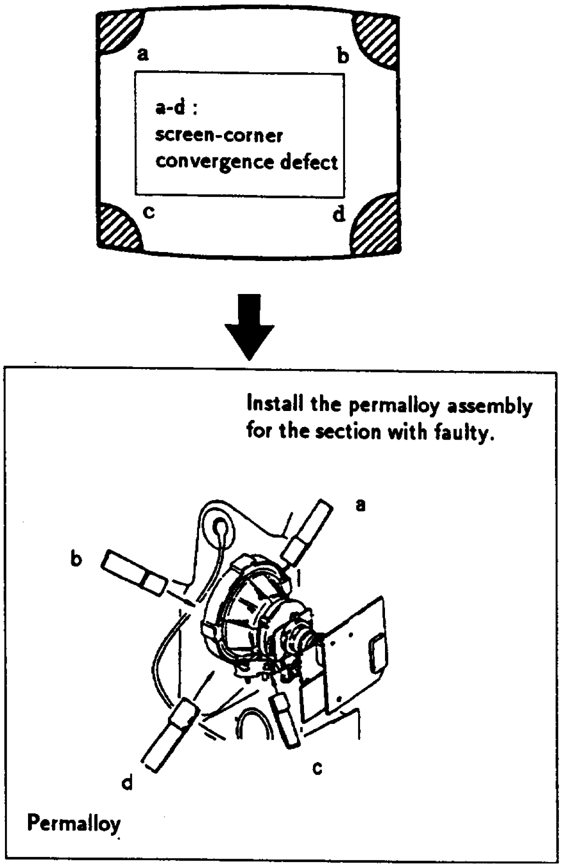
LOWER TILT

Adjustment of TILT of the lower section of the screen.

At this time, H.TILT, H.AMP, UPPER TILT, UPPER COR, BOW, LOWER TILT, and LOWER COR, BOW look like all the same, but the movement of the right and left dots are reverse in all the TILT system. (Pay attention to the dotted lines.)

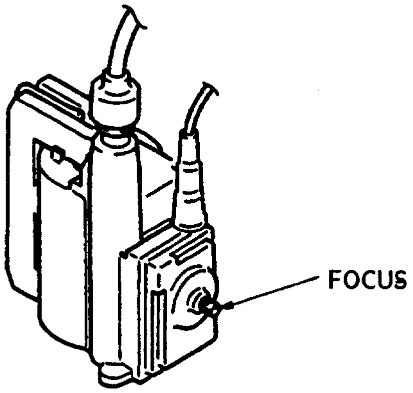
(4) Screen corner convergence

If you cannot adjust corner convergence properly, correct them with permalloy.


a
b
a-d :
screen-corner
convergence defect
c
d
Install the permalloy assembly
for the section with faulty.
a
b
d
c
Permalloy

3-3. FOCUS

Adjust the focus to optimize the screen.



3-4. WHITE BALANCE

[Screen G 2 Setting]

1. Input the dot signal from the pattern generator.
2. Set the picture brightness control to its lowest level.
3. Apply 175 V DC to the R,G, and B cathodes with an external power supply.
4. While watching the picture, adjust G 2 control RV 701 (Screen) to the point just before the return lines disappear.

[White balance adjustment]

1. Input an all-white signal from the pattern generator.
2. Set the picture brightness and color controls to their normal levels.
3. Use the RV 704 (B Drive) and RV 703 (G Drive) to adjust white balance.

In the adjustments below, have the picture color and brightness settings at their normal levels unless there is a specific instruction to the contrary,

SECTION 4
CIRCUIT ADJUSTMENTS

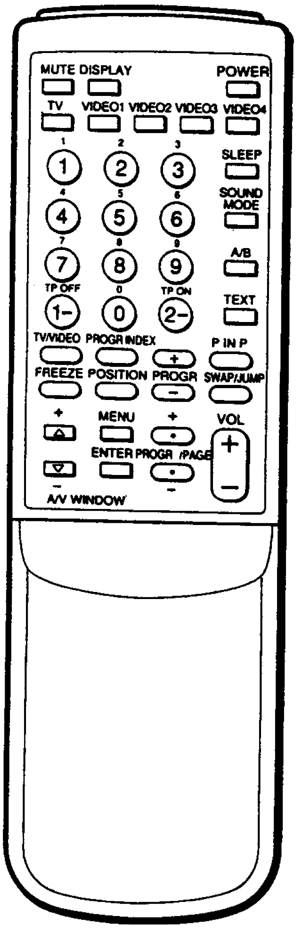
4-1. ADJUSTMENTS WITH COMMANDER

Service adjustments are made with the RM-821 that comes with this unit.

Entering service mode

With the unit on standby
⇩
"DISPLAY"
⇩
"5"
⇩
"VOL (+)"
⇩
"POWER"

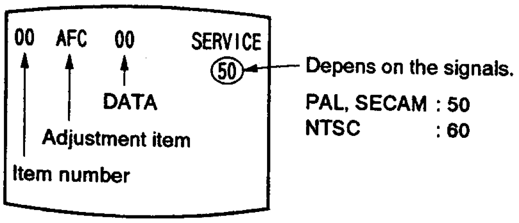
This operation sequence puts the unit into service mode.


MUTE
DISPLAY
POWER
TV
VIDEO1
VIDEO2
VIDEO3
VIDEO4
1
2
3
SLEEP
4
5
6
SOUND MODE
7
8
9
A/B
TP OFF
0
TP ON
1-
0
2-
TEXT
TV/VIDEO
PROGR INDEX
P IN P
FREEZE
POSITION
PROGR
SWAP/JUMP
+
MENU
+
VOL
ENTER
PROGR
/PAGE
+
-
A/V WINDOW
-

"1", "4"	Raise/lower the service item number
"3", "6"	Raise/lower the data
"MUTE"	Writes
"0"	Executes the writing

"7", "0"	The data all becomes the values in memory
"8", "0"	User control all goes to the standard state
"9"	H-FRE automatic adjustment
"5", "0"	Service data initialization (Besure not to use usually.)
"2", "0"	Write 50 Hz adjustment data to 60 Hz, or in opposition.

The screen display is:


00 AFC 00 SERVICE
50
Depens on the signals.
PAL, SECAM : 50
NTSC : 60
DATA
Adjustment item
Item number

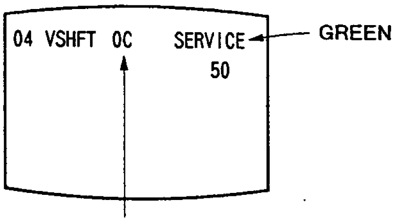
"1", "4" Select the adjustment item.
⬇
"3", "6" Raise/lower the data.
⬇
"MUTE" Writes.
⬇
"0" Executes the writing.

4-2. ADJUSTMENT METHOD

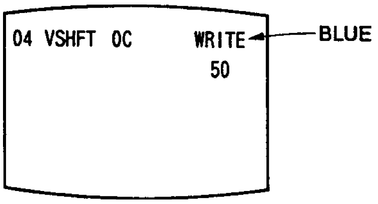
Item Number 04

This explanation uses VSHFT as an example.

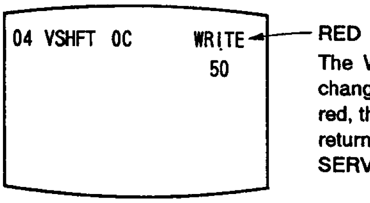
1. Select 04 VSHFT with the "1" and "4" buttons.
2. Raise/lower the data with the "3" and "6" buttons.
3. Select the optimum state. (The standard is for 0F PAL reception.)
4. Write with the MUTE button. (The display changes to blue WRITE.)
5. Execute the writing with the "0" button. (The WRITE display changes briefly to red.)



Adjusted with "3" and "6" buttons



Written with "MUTE"



The WRITE display changes briefly to red, then the display returns to a green SERVICE.

Write excuted with "0"

Use the same method for Items Number 00 – 50. Use "1" and "4" to select the adjustment item, use "3" and "6" to adjust, write with "MUTE", then execute the write with "0".

Note: In "WRITE", the data of all items are wrote together to memory.

- H-FRE can be adjusted automatically. Feed a standard signal and input "9", the automatic adjustment is executed.
- As for VFREQ, by searching the bolded screen V range with adjusting data.

Note: In item 02 50 Hz, or item 03 60 Hz, it operates normally in spite of the 50 Hz or the 60 Hz of the input signal. Therefore be suure to adjust data according to the input signal.

Label	Display	Data range	Standard *1		50/60 *2	Remarks
			50 Hz	60 Hz		
00	AFC	00 ~ 03	00	00	○	AFC SWITCH (03 : Free run) (CXA1464)
01	H-FRE	00 ~ 7F	45	40	○	H FREQUENCY (CXA1464)
02	VFR50	00 ~ 1F	0F	×	×	V FREQUENCY 50 (CXA1464)
03	VFR60	00 ~ 1F	×	0F	×	V FREQUENCY 60 (CXA1464)
04	VSHFT	00 ~ 1F	0C	0C	○	V SHIFT (CXA1464)
05	VSIZE	00 ~ 3F	26	27	○	V SIZE (CXA1464)
06	V-LIN	00 ~ 0F	07	07	○	V LINEARITY (CXA1464)
07	VSCOR	00 ~ 0F	07	07	○	V S correction (CXA1464)
08	H-PHA	00 ~ 0F	03	05	○	H CENTER (CXA1464)
09	HSIZE	00 ~ 1F	12	12	○	H SIZE (CXA1464)
10	PINAM	00 ~ 1F	12	12	○	PIN AMP (CXA1464)
11	CORPN	00 ~ 07	04	04	○	CORNER PIN (CXA1464)
12	PIN-P	00 ~ 0F	09	08	○	PIN PHASE (CXA1464)
13	Y-BOW	00 ~ 3F	24	24	○	Y BOW (CXA1315-7)
14	V-ANG	00 ~ 3F	23	23	○	V ANGLE (CXA1315-7)
15	H-TRP	00 ~ 3F	1F	1F	○	H TRPZ (CXA1315-7)
16	VCOMP	00 ~ 07	03	03	○	V zooming correction (CXA1464)
17	VSM50	00 ~ 01	00	×	×	V lock range switch 50 (CXA1464)
18	VSM60	00 ~ 01	×	00	×	V lock range switch 60 (CXA1464)
19	DSHFT	00 ~ 3F	0C	0C	○	DC SHIFT (CXA1526)
20	UYBOW	00 ~ 3F	25	25	○	U.Y. BOW (CXA1526)
21	LYBOW	00 ~ 3F	25	25	○	L.Y. BOW (CXA1526)
22	H.AMP	00 ~ 3F	1F	1F	○	H.AMP (CXA1526)
23	HTILT	00 ~ 3F	1F	1F	○	H.TILT (CXA1526)
24	UCBOW	00 ~ 3F	1F	1F	○	U.C. BOW (CXA1526)
25	UTILT	00 ~ 3F	1F	1F	○	U.TILT (CXA1526)
26	LCBOW	00 ~ 3F	1F	1F	○	L.C. BOW (CXA1526)
27	LTILT	00 ~ 3F	1F	1F	○	L.TILT (CXA1526)
28	SBPIC	00 ~ 1F	0D		×	SUB PICTURE μC main unit
29	SBHUE	00 ~ 1F	0D		×	SUB HUE μC main unit
30	SBCOL	00 ~ 1F	0D		×	SUB COLOR μC main unit
31	SBBRT	00 ~ 1F	0D		×	SUB BRIGHTNESS μC main unit
32	SBSHP	00 ~ 1F	※		×	SUB SHARPNESS μC main unit
33	SBBAL	00 ~ 1F	0D		×	SUB BALANCE μC main unit
34	VM	00 ~ 01	0		×	VM function ON/OFF
35	M-DSP	00 ~ 3F	35		×	Main screen display position horizontal direction
36	S-DSP	00 ~ 3F	0E		×	PinP screen display position horizontal direction
37	PIP-H	00 ~ 3F	20	20	○	PinP H position correction (SDA9089)
38	PIP-V	00 ~ 0F	08	08	○	PinP V position correction (SDA9089)
39	PIP-L	00 ~ 0F	※		×	PinP out level (SDA9089)
40	PIP-C	00 ~ 07	04		×	PinP frame color (SDA9089)
41	PIP-D	00 ~ 07	00	00	○	PinP delay (SDA9089)
42	PIPVS	00 ~ 07	04	04	○	PinP V correction (SDA9089)
43	PIPHS	00 ~ 0F	07	04	○	PinP H correction (SDA9089)
44	TXPIC	00 ~ 0F	05		×	Text picture
45	BLUE	00 ~ 01	1		×	No-signal blue back YES/NO
46	OSDOE	00 ~ 01	0		×	CRT screen display odd/even inversion setting
47	OSD-V	00 ~ 1F	0F		×	V CRT screen diaplay start position
48	DEGAU	00 ~ 01	※		×	Degauss function ON/OFF
49	ONDLY	00 ~ FF	80		×	Power on delay time
50	MUTE	00 ~ 01	01		×	No-signal sound mute YES/NO

*1 50 : PAL input signal standard
60 : NTSC input signal standard

*2 Items marked ○ are different for 50 and 60; those marked × are common to 50 and 60.

Notes:

08 H-PHA is adjusted with data 00 – 07.
34 VM does not function.
46 OSDOE is set to 0.
48 DEGAU is set to 1.
49 ONDLY is set to 80.
39 PIP-L is set to 01 for M37204M8-A10SP (M M't IC 005)
08 for M37204M8-xxx
50 MUTE can not be selected for M37204M8-A10SP
32 SBSHP is set to 03 for M37204M8-A10SP
0D for M37204M8-xxx

4-3. PICTURE QUALITY ADJUSTMENTS

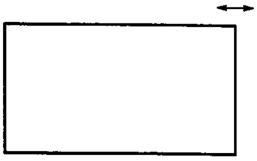
Item Numbers 28 – 33

SBPIC SBHUE SBCOL SBBRT	When it is out of order in the user 50% condition, be sure to adjust.
SBSHP SBBAL	Set to the standard values.

4-4. DISPLAY POSITION ADJUSTMENT

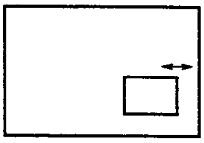
Item Numbers 35 – 43

35 M-DSP Main screen display position, horizontal



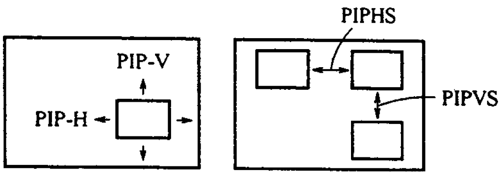
Stretches/contracts the right side of the screen.

36 S-DSP PinP screen display position



Stretches/contracts the right side of the child screen.

37 PIP-H Pin-P horizontal position correction
38 PIP-V Pin-P vertical position correction
42 PIPVS Pin-P vertical correction
43 PIPHS Pin-P horizontal correction



- When pressing PIP “POSITION” key in the servicce mode, “POSITION” turns round and round automatically.

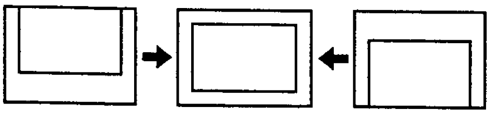
Item Numbers 39 – 41 and 47 are set to the standard values.

44 TXPIC Text picture
Corrects the brightness for when teletext is received.
Standard value is 05.

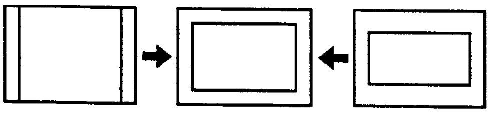
4-5. PICTURE DISTORTION ADJUSTMENT

Item Numbers 04 – 18

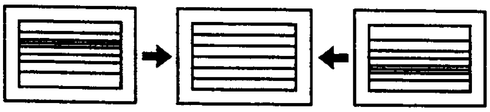
04 VSHFT (V SHIFT)



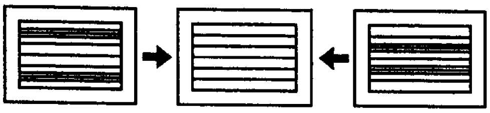
05 VSIZE (V SIZE)



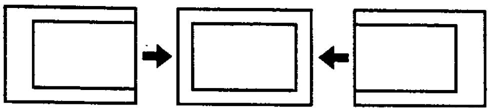
06 V-LIN (V LINEARITY)



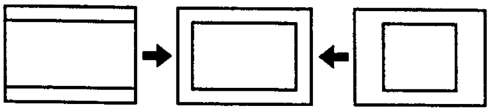
07 VSCOR (VERTICAL S correction)



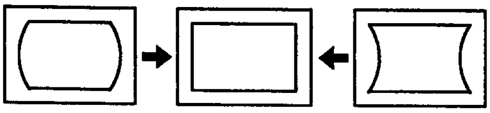
08 H-PHA (H CENTER)



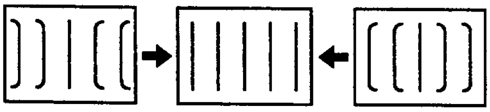
09 HSIZE (H SIZE)



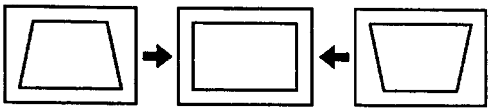
10 PINAM (PIN AMP)



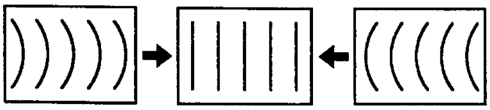
11 CORPN (CORNER PIN)



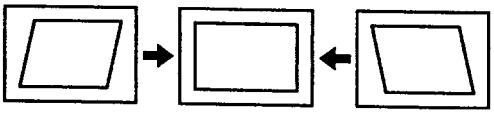
12 PIN-P (PIN PHASE)



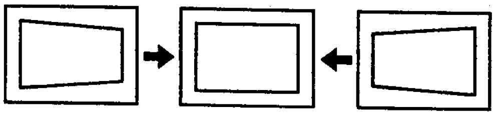
13 Y-BOW (Y BOW)



14 V-ANG (V ANGLE)



15 H-TRP (H TRPZ)

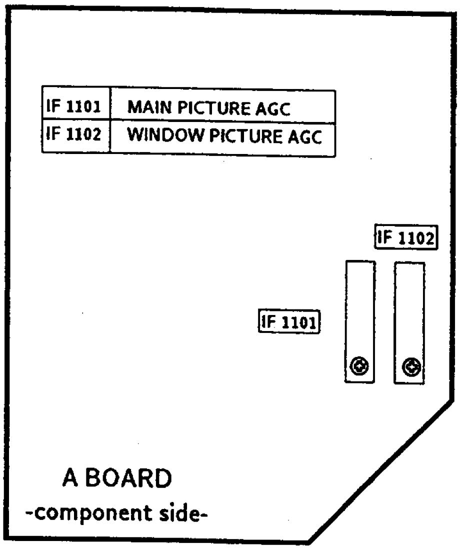


16 VCOMP (Vertical zooming correction)
The vertical size correction data for when the screen is bright and the screen is dark is set to the standard value of 03.

17 VSM50 (Vertical lock range switch 50)
The data is set to the standard value of 00.

18 VSM60 (Vertical lock range switch 60)
The data is set to the standard value of 00.

4-6. A BOARD ADJUSTMENTS


IF 1101 | MAIN PICTURE AGC
IF 1102 | WINDOW PICTURE AGC
IF 1102
IF 1101
A BOARD
-component side-

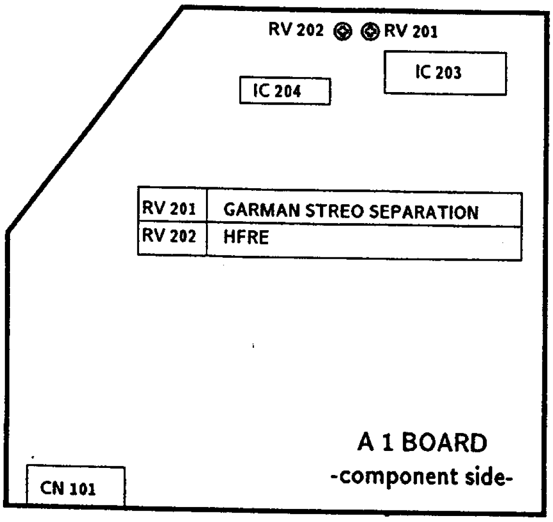
Main screen AGC adjustment (IF1101)

1. Receive an off-air signal.
2. Adjust the IF1101 RF AGC VR so that there is no snow noise or cross-modulation.
3. Switch the channel and verify the adjustment.

PinP screen AGC adjustment (IF1102)

1. Receive an off-air signal.
2. Adjust the IF1102 RF AGC VR so that there is no snow noise or cross-modulation.
3. Switch the channel and verify the adjustment.

4-7. A1 BOARD ADJUSTMENTS


RV 202
RV 201
IC 203
IC 204
RV 201 | GARMAN STREO SEPARATION
RV 202 | HFRE
CN 101
A 1 BOARD
-component side-

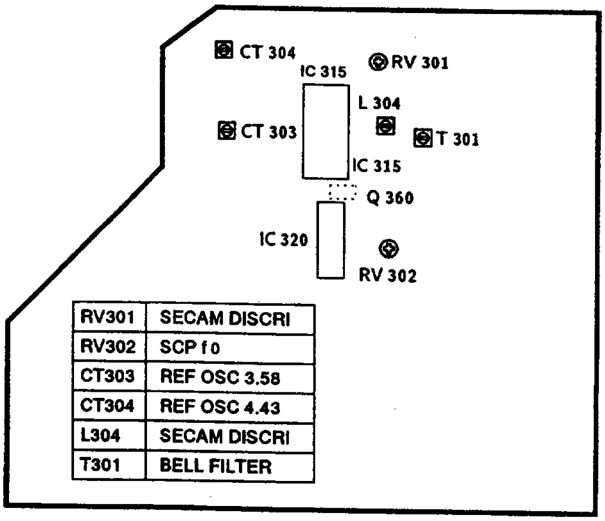
German stereo separation adjustment (RV201)

1. Input a 400 Hz signal to the left and a 1 kHz signal to the right.
2. Connect an oscilloscope to Pins ⑧ and ⑨ of CN101.
3. Adjust RV201 so that a 400Hz sine wave is output from Pin ⑧ and a 1 kHz sin wave is output from Pin ⑨.

Horizontal frequency adjustment (RV202)

1. Connect Pin ⑫ of IC204 to ground.
2. Receive a PAL color bar signal.
3. Connect a frequency counter to Pin ⑬ of IC203.
4. Adjust RV202 for a frequency of 15625 ± 50 Hz.
5. Remove the ground from Pin ⑫ of IC204.

4-8. B BOARD ADJUSTMENTS

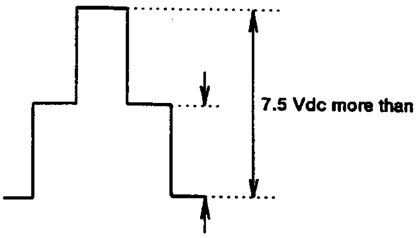

CT 304
IC 315
RV 301
L 304
CT 303
T 301
IC 315
Q 360
IC 320
RV 302

RV301	SECAM DISCRI
RV302	SCP f0
CT303	REF OSC 3.58
CT304	REF OSC 4.43
L304	SECAM DISCRI
T301	BELL FILTER

B BOARD (MAIN PICTURE)
-component side-

SCP f0 adjustment (RV302)

1. Connect Pin⑫ of IC320 to ground.
2. Connect a frequency counter to Pin④ of IC320.
3. Adjust RV302 for a frequency of 15.625 kHz.
4. Check that the SCP pulse is output at Pin⑥ of IC320.


7.5 Vdc more than
3.5 Vdc more than

5. Remove the ground from Pin⑫ of IC320.

Reference oscillation adjustment (CT304)

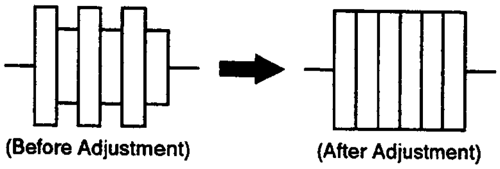
1. Connect Pin⑰ of IC315 to ground.
2. Input a PAL color bar signal.
3. Adjust CT304 to the point where the screen moves the slowest.
4. Remove the ground from Pin⑰ of IC315.

Reference oscillation adjustment (CT303)

1. Connect Pin⑰ of IC315 to ground.
2. Input a 3.58 NTSC color bar signal.
3. Adjust CT303 to the point where the screen moves the slowest.
4. Remove the ground from Pin⑰ of IC315.

Bell filter adjustment (T301)

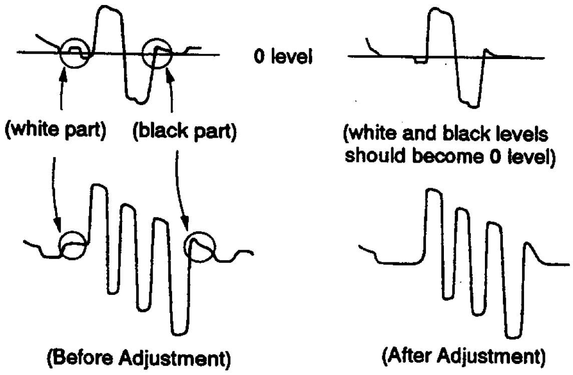
1. Input a SECAM color bar signal.
2. Connect an oscilloscope to the emitter of Q360.
3. Adjust T301 so that the waveform is flat.



(Before Adjustment) (After Adjustment)

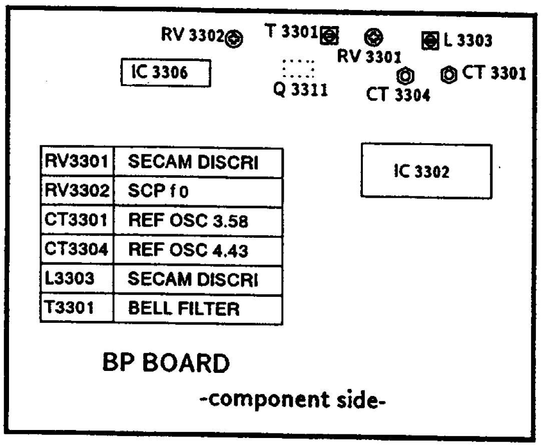
SECAM DISCRI adjustment (RV301, L304)

1. Input a SECAM color bar signal.
2. Connect an oscilloscope to Pin① of IC315.
3. Adjust RV301 so that the sections corresponding to white and black are at 0 level.
4. Connect the oscilloscope to Pin③ of IC315.
5. Adjust L304 so that the sections corresponding to white and black are at 0 level.
6. Carry out the 2 – 5 tracking.


0 level
(white part)
(black part)
(white and black levels should become 0 level)

(Before Adjustment) (After Adjustment)

4-9. BP BOARD ADJUSTMENTS (PinP screen)

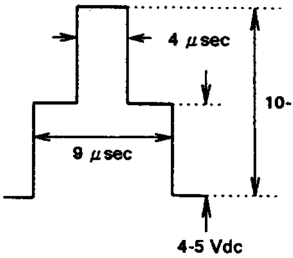

RV 3302
T 3301
L 3303
RV 3301
IC 3306
CT 3301
Q 3311
CT 3304
IC 3302

RV3301	SECAM DISCRI
RV3302	SCP f 0
CT3301	REF OSC 3.58
CT3304	REF OSC 4.43
L3303	SECAM DISCRI
T3301	BELL FILTER

BP BOARD
-component side-

SCP fo adjustment (RV3302)

1. Connect Pin ⑫ of IC3306 to ground.
2. Connect a frequency counter to Pin ④ of IC3306.
3. Adjust RV3302 for 15.625 kHz.
4. Check that the SCP pulse is output at Pin ⑥ of IC3306.


4 μsec
10-11 Vdc
9 μsec
4-5 Vdc

5. Remove the ground from Pin ⑫ of IC3306.

Reference oscillation adjustment (CT3304)

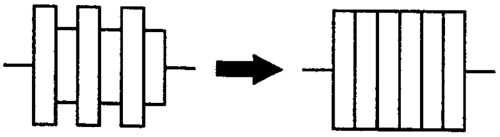
1. Connect Pin ⑰ of IC3302 to ground.
2. Input a PAL color bar signal to the PinP screen.
3. Adjust CT3304 to the point where the screen moves the slowest.
4. Remove the ground from Pin ⑰ of IC3302.

Reference oscillation adjustment (CT3301)

1. Connect Pin ⑰ of IC3302 to ground.
2. Input a 3.58 NTSC color bar signal.
3. Adjust CT3301 to the point where the screen moves the slowest.
4. Remove the ground from Pin ⑰ of IC3302.

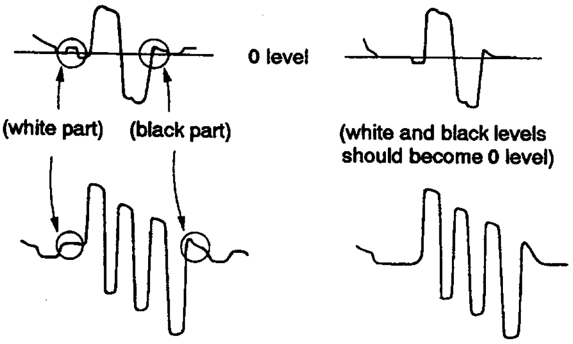
Bell filter adjustment (T3301)

1. Input a SECAM color bar signal.
2. Connect an oscilloscope to the emitter of Q3311.
3. Adjust T3301 so that the waveform is flat.


(Before Adjustment) (After Adjustment)

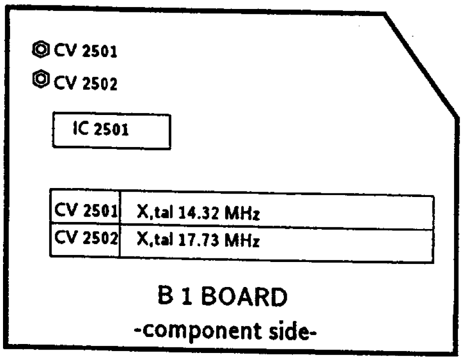
SECAM DISCRI adjustment (RV3301, L3303)

1. Input a SECAM color bar signal.
2. Connect an oscilloscope to Pin ① of IC3302.
3. Adjust RV3301 so that the sections corresponding to white and black are at 0 level.
4. Connect the oscilloscope to Pin ③ of IC3302.
5. Adjust L3303 so that the sections corresponding to white and black are at 0 level.
6. Carry out the 2 – 5 tracking.


0 level
(white part)
(black part)
(white and black levels should become 0 level)

(Before Adjustment) (After Adjustment)

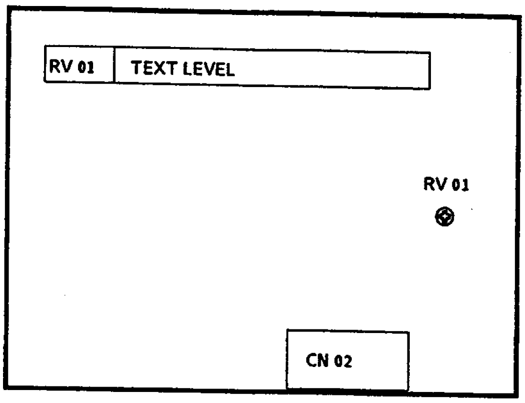
4-10. B1 BOARD ADJUSTMENT


CV 2501
CV 2502
IC 2501
CV 2501 X,tal 14.32 MHz
CV 2502 X,tal 17.73 MHz
B 1 BOARD
-component side-

Crystal adjustment (CV2502)

1. Put the unit into the no-signal state.
2. Select PAL with COLOR SYSTEM.
3. Connect a frequency counter to Pin ⑰ of IC2501.
4. Adjust CV2502 for a frequency of 17.73447 MHz ± 100 Hz.
5. Select NTSC with COLOR SYSTEM.
6. Adjust CV2501 for a frequency of 14.31818 MHz ± 100 Hz.

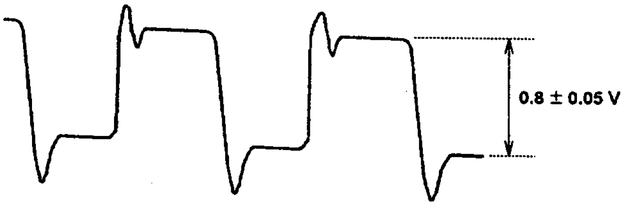
4-11. V BOARD ADJUSTMENT


RV 01 TEXT LEVEL
RV 01
CN 02

V BOARD
-component side-

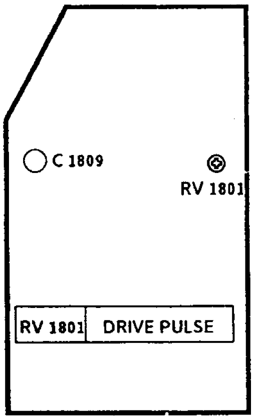
Text level adjustment (RV01)

1. Receive a teletext signal.
2. Connect an oscilloscope to Pin ④ of CN02.
3. Adjust RV01 for a voltage of 0.5 ± 0.05 V.



Note: The item 44 TXPIC should be set to 05 value in the service mode.

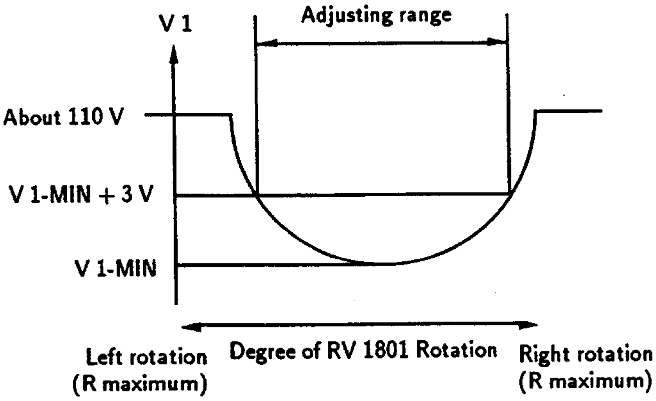
4-12. VC BOARD ADJUSTMENT


C 1809
RV 1801
RV 1801
DRIVE PULSE

VC BOARD
-component side-

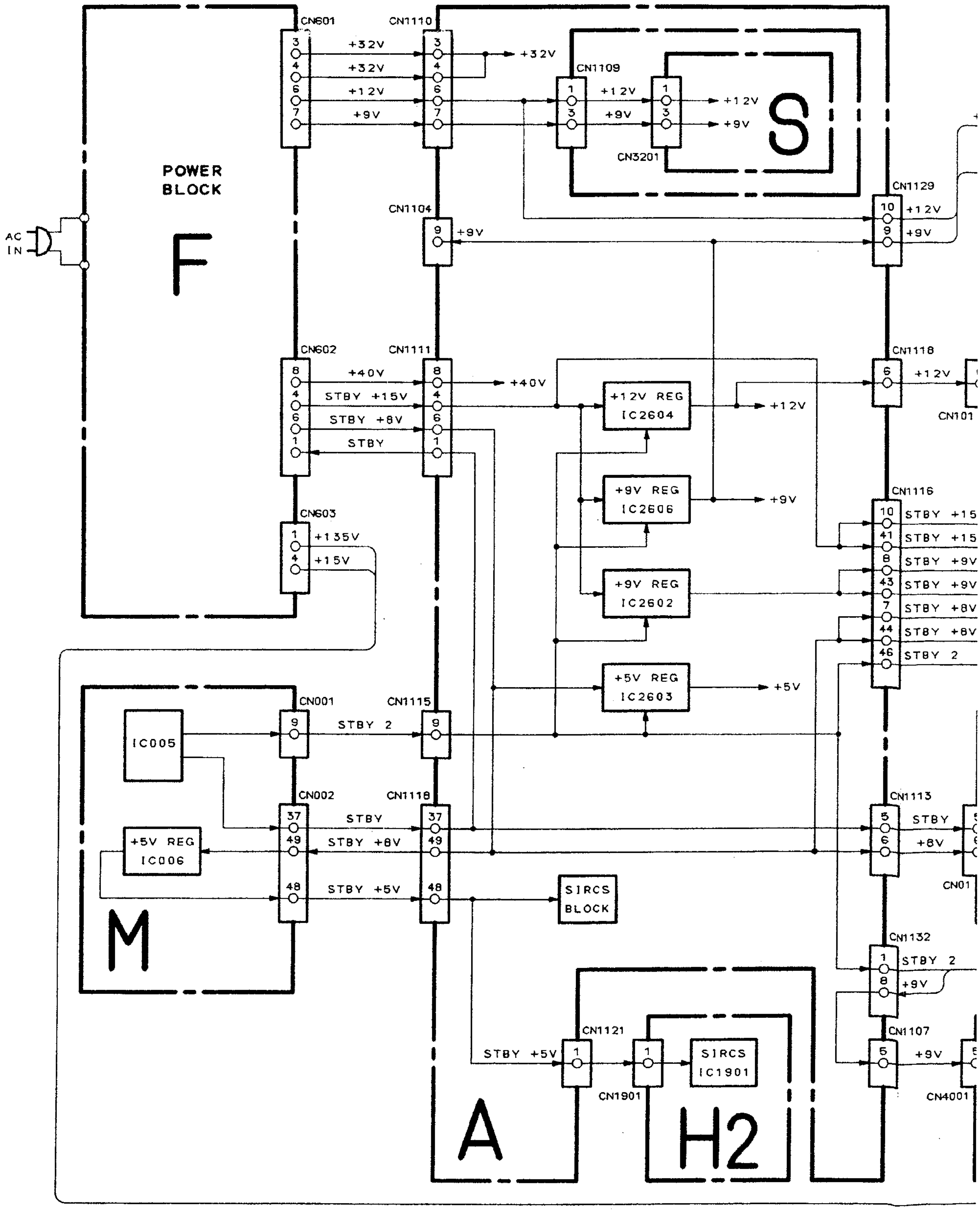
Drive pulse adjustment (RV1801)

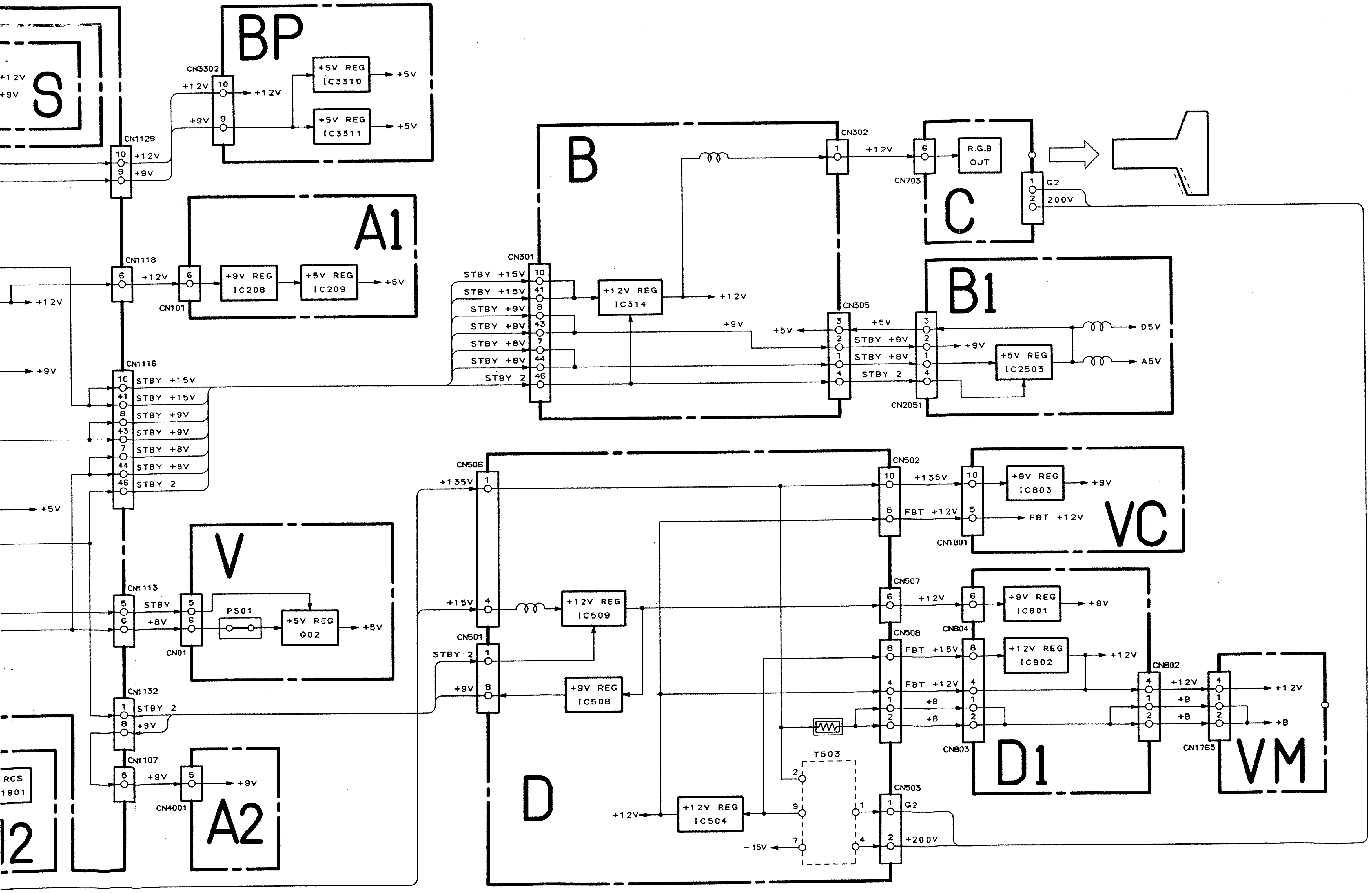
1. Connect a DC voltmeter across C1809.
2. Adjust RV1801 for the minimum voltage V_1 across C1809. The adjustment range is V_1 min $^{+3}_{-0}$ V.



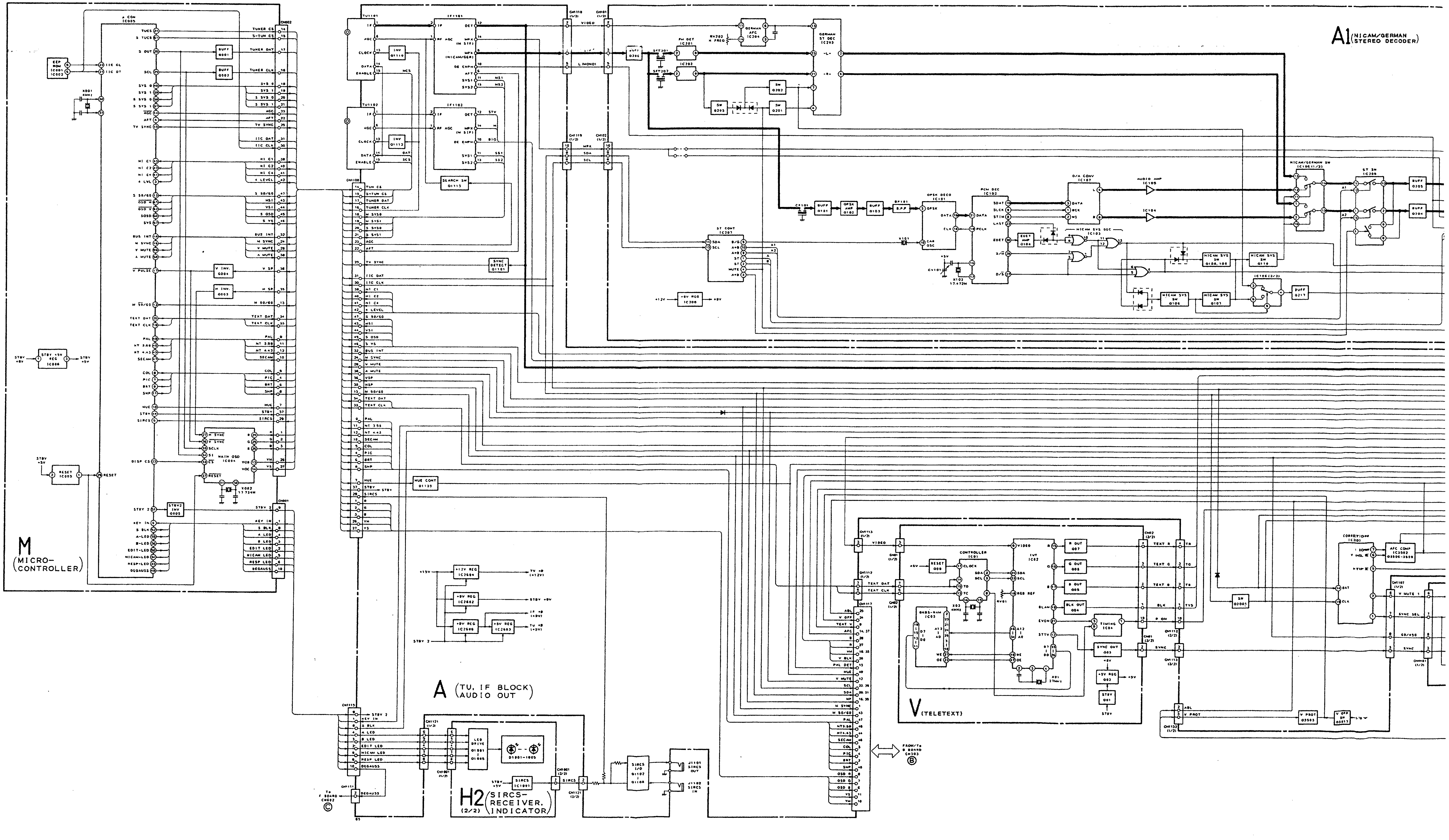
SECTION 5
DIAGRAMS

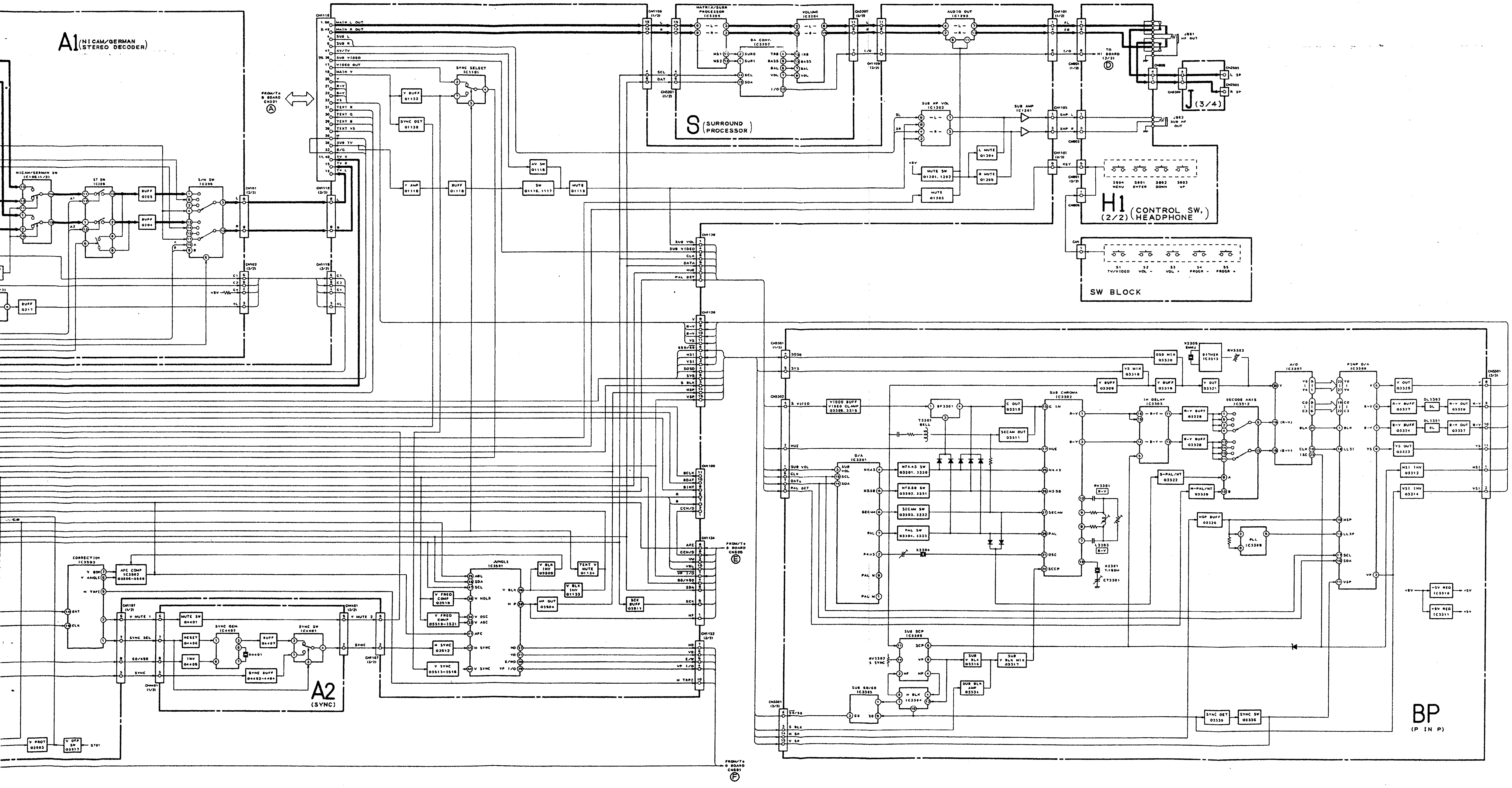
5-1. BLOCK DIAGRAM-1


CN601
CN1110
+32V
+32V
+12V
+9V
+32V
CN1109
+12V
+9V
+12V
+9V
S
CN3201
POWER BLOCK
F
AC IN
CN1104
+9V
CN1129
+12V
+9V
CN602
CN1111
+40V
STBY +15V
STBY +8V
STBY
+40V
+12V REG IC2604
+12V
CN1118
+12V
CN101
+9V REG IC2606
+9V
CN603
+135V
+15V
CN1116
STBY +15
STBY +15
STBY +9V
STBY +9V
STBY +8V
STBY +8V
STBY 2
+9V REG IC2602
+5V REG IC2603
+5V
IC005
CN001
CN1115
STBY 2
CN002
CN1118
STBY
STBY +8V
STBY +5V
+5V REG IC006
SIRCS BLOCK
M
CN1113
STBY
+8V
CN01
CN1132
STBY 2
+9V
CN1121
STBY +5V
SIRCS IC1901
CN1901
CN1107
+9V
CN4001
A
H2

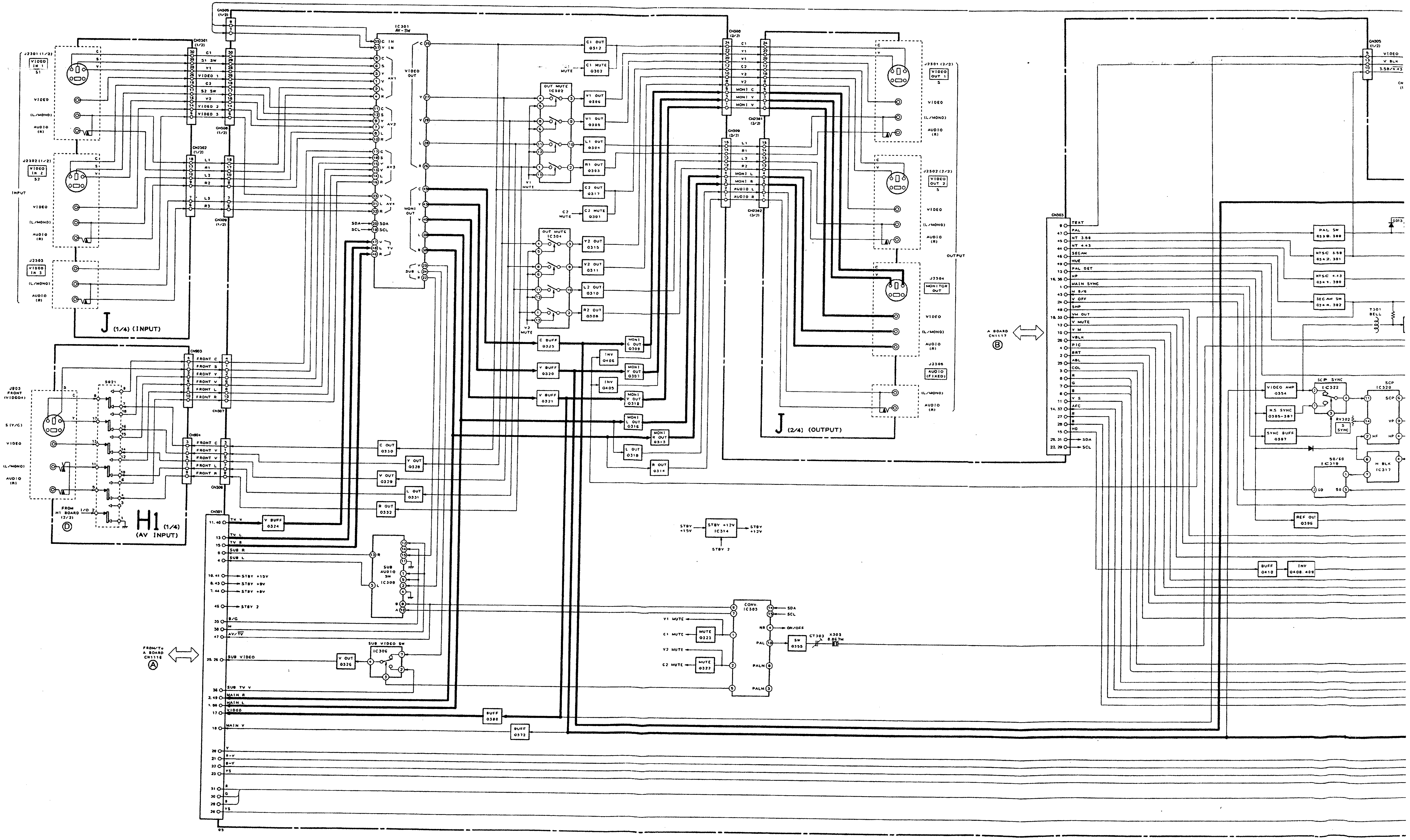

S
+12V
+9V
BP
CN3302
+12V 10
+9V 9
+12V
+5V REG IC3310
+5V
+5V REG IC3311
+5V
CN1129
10 +12V
9 +9V
A1
CN1118
6 +12V
CN101
+9V REG IC208
+5V REG IC209
+5V
+12V
+9V
CN1116
10 STBY +15V
41 STBY +15V
8 STBY +9V
43 STBY +9V
7 STBY +8V
44 STBY +8V
46 STBY 2
+5V
V
CN1113
5 STBY
6 +8V
CN01
PS01
+5V REG Q02
+5V
CN1132
1 STBY 2
8 +9V
CN1107
5 +9V
CN4001
+9V
A2
RCS
1901
B
CN301
STBY +15V 10
STBY +15V 41
STBY +9V 8
STBY +9V 43
STBY +8V 7
STBY +8V 44
STBY 2 46
+12V REG IC314
+12V
+9V
CN302
+12V
CN305
+5V
3 +5V
2 STBY +9V
1 STBY +8V
4 STBY 2
C
CN703
6
R.G.B OUT
G2
200V
B1
CN2051
+9V
+5V REG IC2503
D5V
A5V
D
CN506
+135V 1
+15V 4
CN501
STBY 2 1
+9V 8
+12V REG IC509
+9V REG IC508
+12V REG IC504
+12V
T503
-15V
CN502
10 +135V
5 FBT +12V
CN507
6 +12V
CN508
8 FBT +15V
4 FBT +12V
1 +B
2 +B
CN503
1 G2
2 +200V
VC
CN1801
+9V REG IC803
+9V
FBT +12V
D1
CN804
+9V REG IC801
+9V
+12V REG IC902
+12V
CN803
CN802
+12V
+B
+B
VM
CN1763
+12V
+B
12

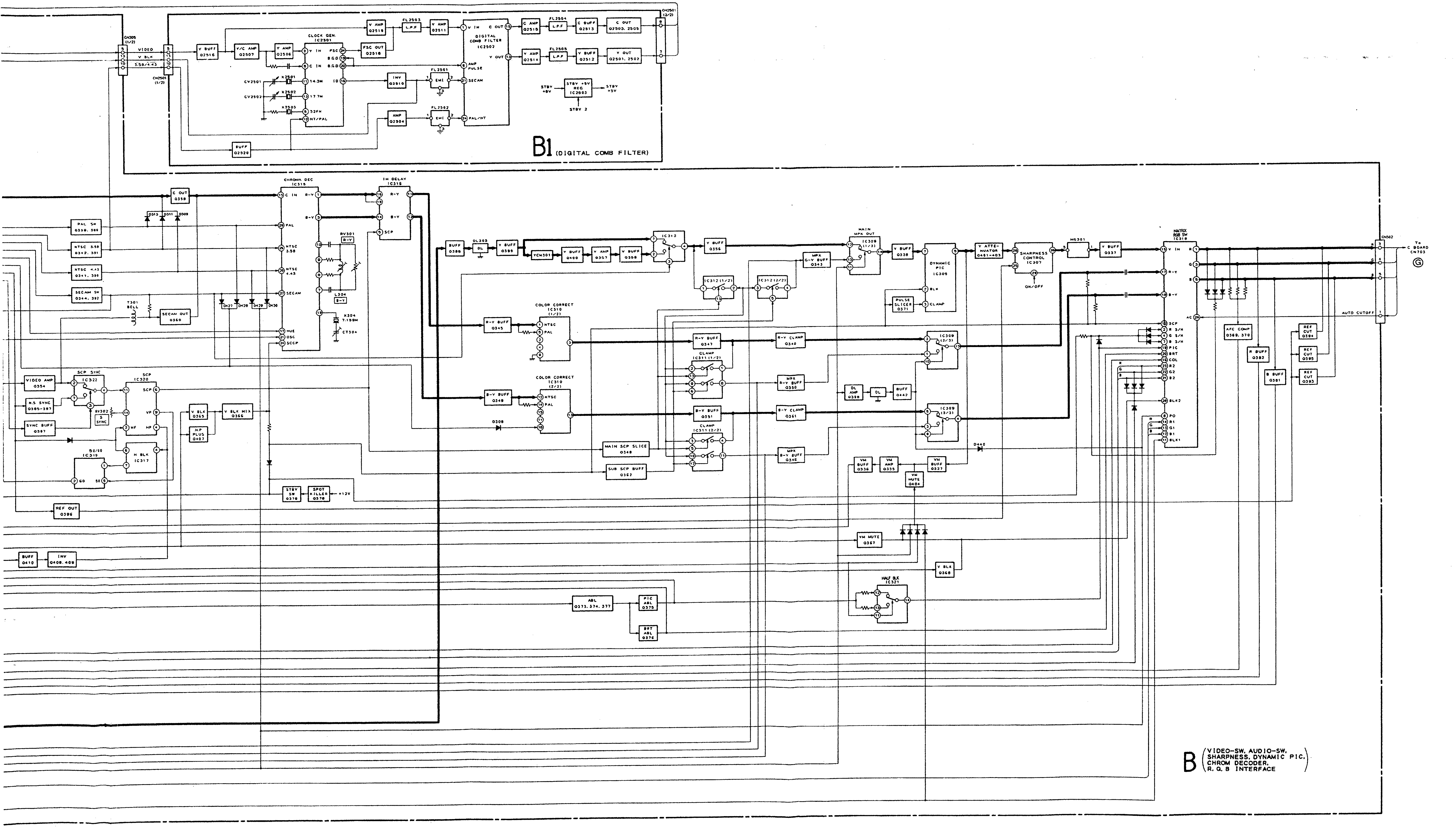
BLOCK DIAGRAM-2


M (MICRO-CONTROLLER)
A (TU, IF BLOCK AUDIO OUT)
A1 (NICAM/GERMAN STEREO DECODER)
V (TELETEXT)
H2 (SIRCS-RECEIVER, INDICATOR) (2/2)
EEP ROM IC001 IC002
STBY +5V REG IC006
RESET IC003
MAIN OSD IC004
TU1101
TU1102
IF1101
IF1102
SEARCH SW Q1113
SYNC DETECT Q1101
HUE CONT Q1135
+12V REG IC2604
+9V REG IC2602
+5V REG IC2603
ST CONT IC207
GERMAN AFC IC204
GERMAN ST DEC IC203
QPSK DECO IC101
PCM DEC IC102
D/A CONV IC107
AUDIO AMP IC109
IC104
NICAM/GERMAN SW IC106(1/2)
ST SW IC209
CONTROLLER IC01
CVT IC02
TIMING IC04
SYNC OUT Q03
+5V REG Q02
STBY Q01
LED DRIVE Q1981
SIRCS IC1001
SIRCS I/O Q1107 Q1108
J1101 SIRCS OUT
J1102 SIRCS IN
FROM/TO B BOARD CN303 Ⓑ
TO F BOARD CN002 Ⓒ
CN002
CN001
CN1101
CN1115
CN1121
CN601
CN602
CN1113
CN1117
CORRECTION IC301
AFC COMP IC3502
V PROT Q3503

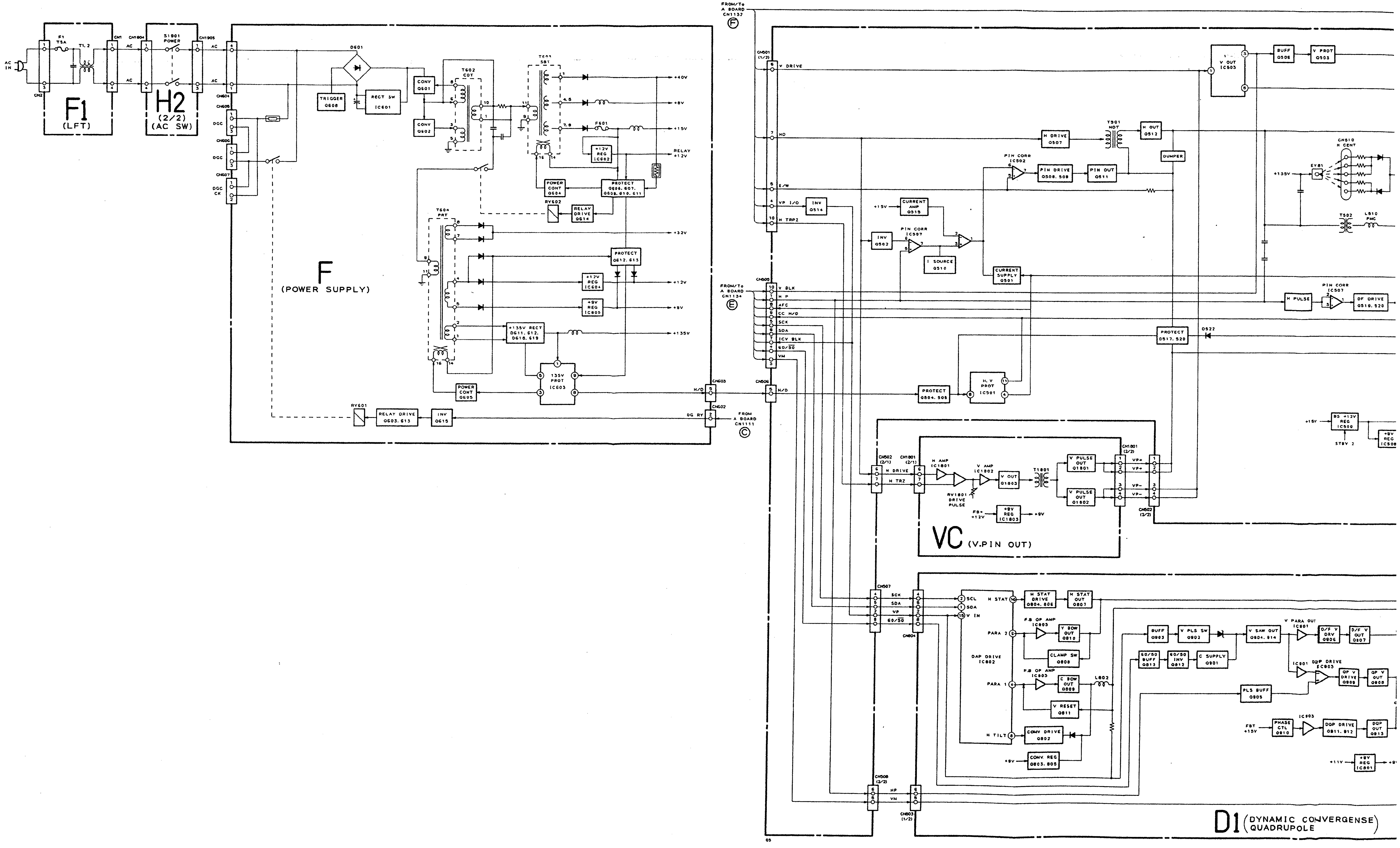

A1 (NICAM/GERMAN STEREO DECODER)
FROM/TO B BOARD CN301 Ⓐ
S (SURROUND PROCESSOR)
MATRIX/SURR PROCESSOR IC3303
VOLUME IC3304
AUDIO OUT IC1203
TO H1 BOARD (2/2) Ⓓ
J (3/4)
J881 HP OUT
J882 SUB HP OUT
H1 (2/2) (CONTROL SW, HEADPHONE)
S884 MENU
S881 ENTER
S882 DOWN
S883 UP
SW BLOCK
S1 TV/VIDEO
S2 VOL -
S3 VOL +
S4 PROGR -
S5 PROGR +
SYNC SELECT IC1181
SUB HP VOL IC1202
SUB AMP IC1201
FROM/TO B BOARD CN508 Ⓔ
JUNGLE IC3501
CORRECTION IC3503
A2 (SYNC)
SYNC GEN IC4402
SUB CHROMA IC3302
1H DELAY IC3303
DECODE AXIS IC3312
A/D IC3307
PINP D/A IC3306
SUB SCP IC3308
BP (P IN P)
FROM/TO B BOARD CN501 Ⓕ

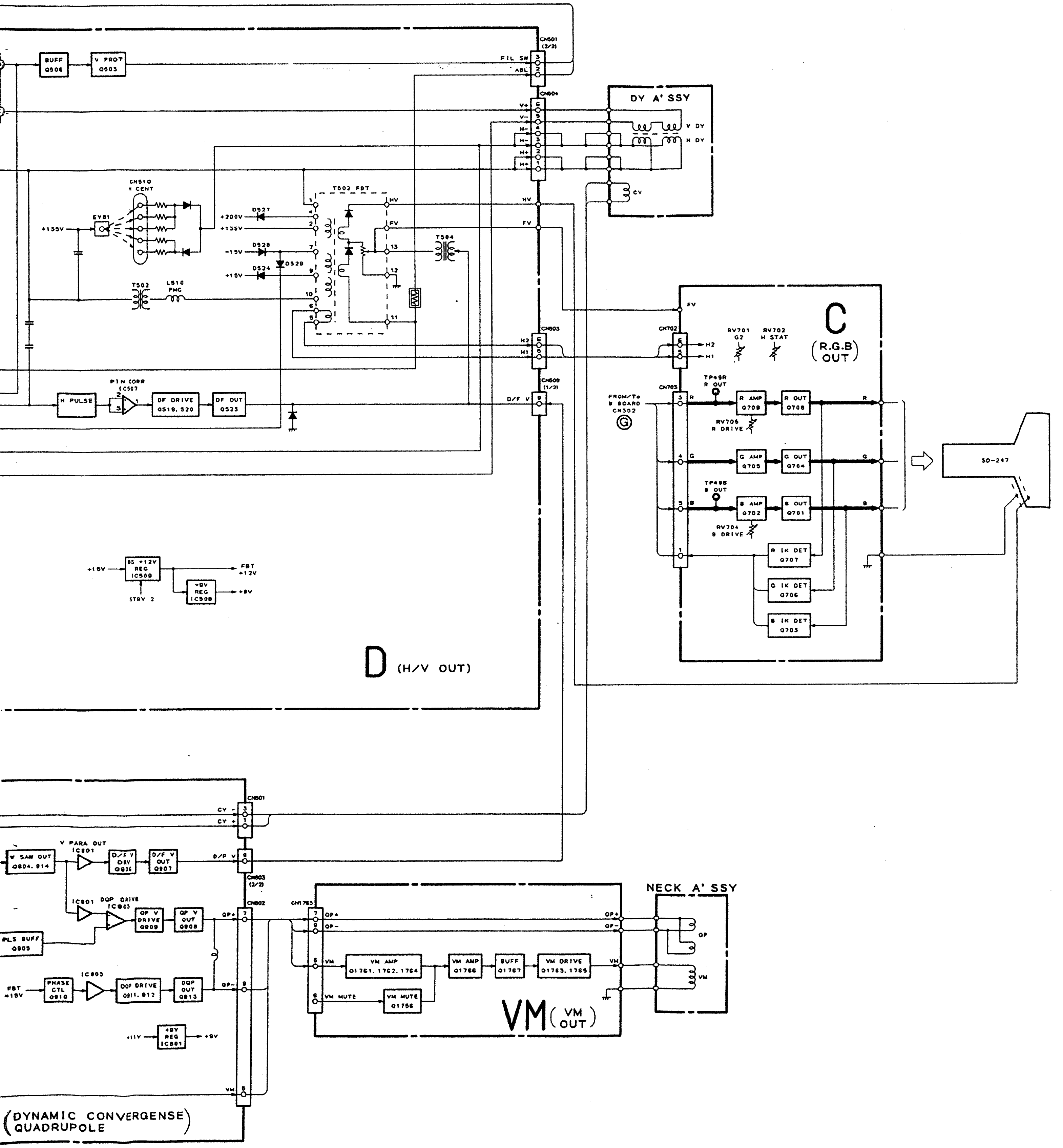
BLOCK DIAGRAM-3


J2301 (1/2)
VIDEO IN 1
S1
J2302 (1/2)
VIDEO IN 2
S2
J2303
VIDEO IN 3
VIDEO
(L/MONO)
AUDIO (R)
INPUT
J (1/4) (INPUT)
CN2301 (1/2)
CN2302 (1/2)
CN305 (1/2)
CN308 (1/2)
CN309 (1/2)
C1
S1 SW
Y1
VIDEO 1
C2
S2 SW
Y2
VIDEO 2
VIDEO 3
L1
R1
L2
R2
L3
R3
IC301 AV-SW
C IN
Y IN
AV1
AV2
AV3
AV4
TV
SDA
SCL
VIDEO OUT
MONI OUT
SUB
OUT MUTE IC302
OUT MUTE IC304
V1 MUTE
V2 MUTE
C1 MUTE
C2 MUTE
C1 OUT Q312
C1 MUTE Q302
Y1 OUT Q306
V1 OUT Q305
L1 OUT Q304
R1 OUT Q303
C2 OUT Q317
C2 MUTE Q301
Y2 OUT Q315
V2 OUT Q311
L2 OUT Q310
R2 OUT Q308
C BUFF Q325
V BUFF Q320
V BUFF Q321
INV Q406
INV Q405
MONI C OUT Q309
MONI Y OUT Q307
MONI V OUT Q319
MONI L OUT Q316
MONI R OUT Q313
L OUT Q318
R OUT Q314
CN300 (2/2)
CN2301 (2/2)
CN309 (2/2)
CN2302 (2/2)
MONI C
MONI Y
MONI V
MONI L
MONI R
AUDIO L
AUDIO R
J2301 (2/2)
VIDEO OUT 1
J2502 (2/2)
VIDEO OUT 2
J2304
MONITOR OUT
J2306
AUDIO (FIXED)
OUTPUT
J (2/4) (OUTPUT)
J903 FRONT (VIDEO4)
S (Y/C)
S921
CN903
CN904
CN307
CN306
FRONT C
FRONT S
FRONT Y
FRONT V
FRONT L
FRONT R
FROM H1 BOARD (2/2)
Ⓓ
H1 (1/4) (AV INPUT)
C OUT Q330
Y OUT Q328
V OUT Q329
L OUT Q331
R OUT Q332
CN301
TV V
TV L
TV R
SUB R
SUB L
STBY +15V
STBY +9V
STBY +8V
STBY 2
B/G
M
AV/TV
SUB VIDEO
SUB TV V
MAIN R
MAIN L
VIDEO
MAIN Y
V BUFF Q324
SUB AUDIO SW IC308
SUB VIDEO SW IC306
V OUT Q326
BUFF Q380
BUFF Q372
Y
R-Y
B-Y
YS
R
G
B
FROM/TO A BOARD CN1116
Ⓐ
STBY +12V IC314
STBY +12V
CONV. IC303
V1 MUTE
C1 MUTE
V2 MUTE
C2 MUTE
MUTE Q323
MUTE Q322
NR
ON/OFF
PAL
PALN
PALM
SW Q355
CT303
X303 8.867M
A BOARD CN1117
Ⓑ
CN303
TEXT
NT 3.58
NT 4.43
SECAM
HUE
PAL DET
HP
MAIN SYNC
M B/G
V OFF
SHP
VM OUT
V MUTE
Y M
VBLK
PIC
BRT
ABL
COL
Y S
AFC
HD
PAL SW Q338.389
NTSC 3.58 Q342.391
NTSC 4.43 Q341.390
SECAM SW Q344.392
T301 BELL
Q313
CN305 (1/2)
V BLK
3.58/4.43
VIDEO AMP Q354
N.S SYNC Q385-387
SYNC BUFF Q387
SCP SYNC IC322
RV302 S SYNC
SCP IC320
HF
VP
H BLK IC317
50/60 IC319
REF OUT Q396
BUFF Q410
INV Q408.409

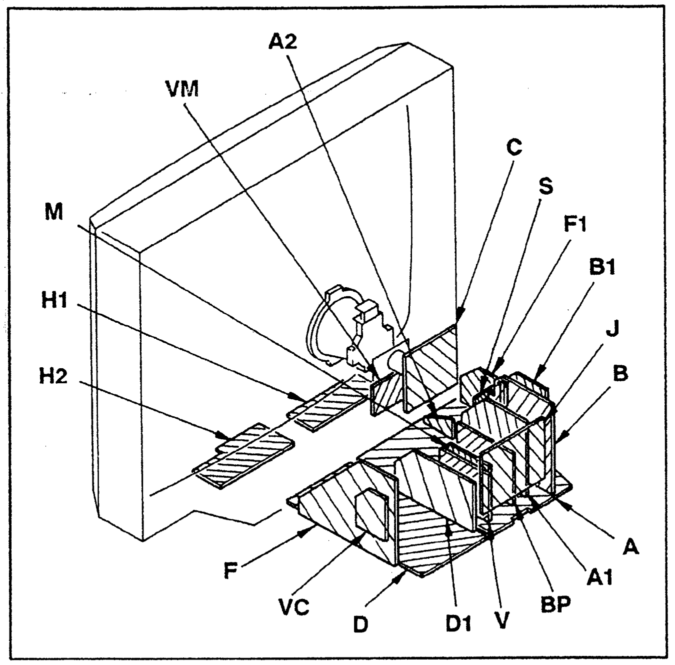

CN305 (1/2)
VIDEO
V BLK
3.58/4.43
CN2501 (1/2)
V BUFF Q2516
Y/C AMP Q2507
Y AMP Q2506
CLOCK GEN. IC2501
Y IN
C IN
FSC
B.G.D
ID
14.3M
17.7M
32FH
NT/PAL
CV2501
CV2502
X2501
X2502
X2503
V AMP Q2519
FSC OUT Q2518
FL2503 L.P.F
V AMP Q2511
INV Q2510
FL2501 EMI
AMP Q2504
FL2502 EMI
BUFF Q2520
DIGITAL COMB FILTER IC2502
V IN
C OUT
Y OUT
AMP PULSE
SECAM
PAL/NT
C AMP Q2515
FL2504 L.P.F
C BUFF Q2513
C OUT Q2503, 2505
Y AMP Q2514
FL2505 L.P.F
Y BUFF Q2512
Y OUT Q2501, 2502
CN2501 (2/2)
STBY +8V
STBY +5V REG IC2503
STBY +5V
STBY 2
B1 (DIGITAL COMB FILTER)
C OUT Q358
D313
D311
D309
PAL SW Q339, 389
NTSC 3.58 Q342, 391
NTSC 4.43 Q341, 390
SECAM SW Q344, 392
T301 BELL
SECAM OUT Q360
D427
D428
D429
D430
CHROMA DEC IC315
C IN
R-Y
B-Y
PAL
NTSC 3.58
NTSC 4.43
SECAM
HUE
OSC
SCCP
RV301 R-Y
L304 B-Y
X304 7.159M
CT304
1H DELAY IC316
R-Y
B-Y
SCP
VIDEO AMP Q354
N.S SYNC Q385-387
SYNC BUFF Q387
SCP SYNC IC322
RV302 S SYNC
SCP IC320
SCP
VP
HF
HP
50/60 IC319
60
50
H BLK IC317
V BLK Q365
H.P PLUS Q407
V BLK MIX Q366
STBY SW Q379
SPOT KILLER Q378
+12V
REF OUT Q396
BUFF Q410
INV Q408, 409
BUFF Q388
DL303 DL
Y BUFF Q389
YCN301
Y BUFF Q400
Y AMP Q357
Y BUFF Q359
IC313
Y BUFF Q356
IC312 (1/2)
IC312 (2/2)
MPX G-Y BUFF Q343
MAIN MPX OUT IC309 (1/3)
Y BUFF Q338
DYNAMIC PIC IC305
BLK
CLAMP
PULSE SLICER Q371
R-Y BUFF Q345
COLOR CORRECT IC310 (1/2)
NTSC
PAL
B-Y BUFF Q349
COLOR CORRECT IC310 (2/2)
D308
R-Y BUFF Q347
CLAMP IC311 (1/2)
B-Y BUFF Q351
CLAMP IC311 (2/2)
MAIN SCP SLICE Q348
SUB SCP BUFF Q362
R-Y CLAMP Q340
MPX R-Y BUFF Q350
B-Y CLAMP Q361
MPX B-Y BUFF Q346
IC309 (2/3)
IC309 (3/3)
DL AMP Q398
DL
BUFF Q442
D440
VM BUFF Q336
VM AMP Q335
VM BUFF Q327
VM MUTE Q404
VM MUTE Q367
V BLK Q368
HALF BLK IC321
ABL Q373, 374, 377
PIC ABL Q375
BRT ABL Q376
Y ATTE-NUATOR Q401-403
SHARPNESS CONTROL IC307
ON/OFF
MG301
Y BUFF Q337
MATRIX RGB SW IC318
Y IN
R-Y
B-Y
SCP
R S/H
G S/H
B S/H
PIC
BRT
COL
R2
G2
B2
BLK2
PO
R1
G1
B1
BLK1
R
G
B
AC
AFC COMP Q369, 370
R BUFF Q382
B BUFF Q381
REF CUT Q384
REF CUT Q395
REF CUT Q393
CN302
AUTO CUTOFF
To C BOARD CN703
G
B (VIDEO-SW, AUDIO-SW, SHARPNESS, DYNAMIC PIC, CHROM DECODER, R, G, B INTERFACE)

BLOCK DIAGRAM-4


AC IN
F1 T5A
F1 (LFT)
S1901 POWER
H2 (2/2) (AC SW)
D601
TRIGGER Q608
RECT SW IC601
CONV Q601
CONV Q602
T602 CDT
T603 SBT
+40V
+8V
+15V
RELAY +12V
F601
+12V REG IC602
POWER CONT Q604
PROTECT Q606, 607, Q608, 610, 611
RY602
RELAY DRIVE Q614
T604 PRT
+32V
PROTECT Q612, 613
+12V REG IC604
+12V
+9V REG IC605
+9V
+135V RECT D611, 612, D618, 619
+135V
135V PROT IC603
POWER CONT Q605
RY601
RELAY DRIVE Q603, 613
INV Q615
F (POWER SUPPLY)
H/D
DG RY
FROM A BOARD CN1111
FROM/To A BOARD CN1132
FROM/To A BOARD CN1134
V DRIVE
HD
E/W
VP I/O
H TRP2
V BLK
H P
AFC
SC H/D
SCK
SDA
ICV BLK
60/50
VM
V OUT IC503
BUFF Q506
V PROT Q503
H DRIVE Q507
T501 HDT
H OUT Q512
DAMPER
PIN CORR IC502
PIN DRIVE Q508, 509
PIN OUT Q511
CURRENT AMP Q515
INV Q514
INV Q502
PIN CORR IC507
I SOURCE Q510
CURRENT SUPPLY Q501
CN610 H CENT
EY81
T502
L510 PMC
H PULSE
DF DRIVE Q519, 520
PROTECT Q517, 520
D522
PROTECT Q504, 505
H.V PROT IC501
B5 +12V REG IC509
+9V REG IC508
H AMP IC1801
V AMP IC1802
V OUT Q1803
T1801
V PULSE OUT Q1801
V PULSE OUT Q1802
RV1801 DRIVE PULSE
+9V REG IC1803
VP+
VP-
VC (V.PIN OUT)
H STAT DRIVE Q804, 806
H STAT OUT Q807
F.B OP AMP IC803
Y BOW OUT Q810
CLAMP SW Q808
C BOW OUT Q809
V RESET Q811
CONV DRIVE Q802
CONV REG Q803, 805
DAP DRIVE IC802
BUFF Q903
V PLS SW Q902
V SAW OUT Q904, 914
V PARA OUT IC801
D/F V DRV Q906
D/F V OUT Q907
60/50 BUFF Q913
60/50 INV Q912
C SUPPLY Q901
PLS BUFF Q905
DQP DRIVE IC903
QP V DRIVE Q908
QP V OUT Q909
PHASE CTL Q910
DQP DRIVE Q911, 912
DQP OUT Q913
+8V REG IC901
L802
HP
VM
D1 (DYNAMIC CONVERGENSE QUADRUPOLE)


BUFF
Q506
V PROT
Q503
FIL SW
ABL
CN501
CN504
DY A' SSY
V DY
H DY
CV
V+
V-
H-
H+
CN510
H CENT
EY81
+135V
T502 FBT
HV
FV
+200V
+135V
-15V
+15V
D527
D528
D524
D529
T504
T502
LS10
PMC
PIN CORR
IC507
H PULSE
DF DRIVE
Q519, 520
DF OUT
Q523
CN503
H2
H1
CN508
D/F V
9S +12V
REG
IC509
FBT
+12V
+9V
REG
IC508
+9V
STBY 2
+15V
D
(H/V OUT)
C
(R.G.B OUT)
FV
CN702
RV701
G2
RV702
H STAT
CN703
FROM/To
B BOARD
CN302
G
TP49R
R OUT
R AMP
Q709
R OUT
Q708
RV705
R DRIVE
G AMP
Q705
G OUT
Q704
TP49B
B OUT
B AMP
Q702
B OUT
Q701
RV704
B DRIVE
R IK DET
Q707
G IK DET
Q706
B IK DET
Q703
SD-247
CN801
CV
V SAW OUT
Q804, 814
V PARA OUT
IC801
D/F V
DRV
Q806
D/F V
OUT
Q807
IC801
QP DRIVE
IC803
QP V
DRIVE
Q809
QP V
OUT
Q808
PLS BUFF
Q805
CN803
CN802
FBT
+15V
PHASE
CTL
Q810
IC803
DQP DRIVE
Q811, 812
DQP
OUT
Q813
+11V
+9V
REG
IC801
+9V
QP+
QP-
VM
CN1763
VM AMP
Q1761, 1762, 1764
VM AMP
Q1766
BUFF
Q1767
VM DRIVE
Q1763, 1765
VM MUTE
VM MUTE
Q1768
NECK A' SSY
QP
VM
VM
(VM OUT)
(DYNAMIC CONVERGENSE QUADRUPOLE)

5-2. CIRCUIT BOARDS LOCATION


A2
VM
C
S
F1
M
B1
H1
J
H2
B
A
F
A1
VC
D
D1
V
BP

5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note :

> Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

- All capacitors are in μ F unless otherwise noted. p : μ μ F. 50WV or less are not indicated except for electolytic and tantalums.
- All resistors are in ohms.
  k Ω =1000 Ω, M Ω =1000k Ω
- Indication of resistance, which does not have one for rating electrical power is as follows.

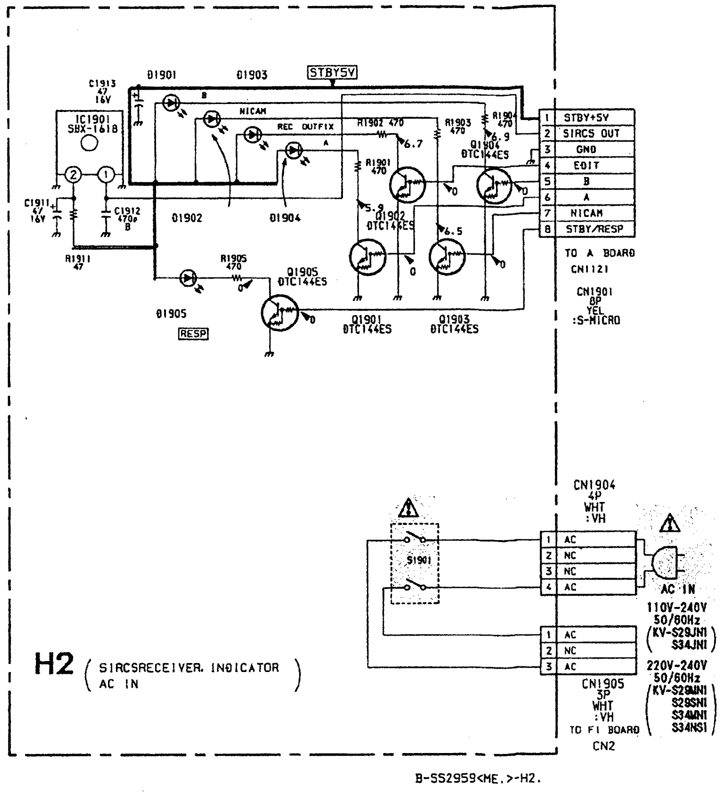
  Pitch : 5mm
  Rating electrical power : ¼W

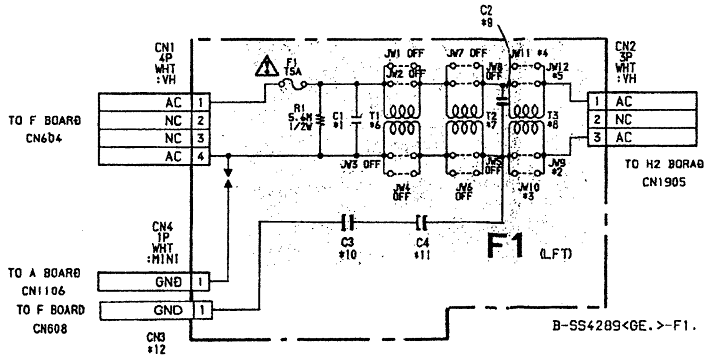
- -▭- : nonflamable resistor.
- △ : internal component.
- ☐ : panel designation or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- Readings are taken with a color-bar signal input.
  no mark : PAL
  〈 〉 : SECAM
  ( ) : NTSC 3.58
  《 》 : NTSC 4.43
- Readings are taken with a 10M Ω digital multimeter.
- Voltages are dc with respect to ground unless otherwise noted.
- Voltages variations may be noted due to normal production tolerances.
- All voltages are in V.
- ⋇ : Can not be measured.
- Circled numbers are waveform references.
- ━━ : B+ bus.
- ▬ ▬ ▬ : B− bus.
- ➡ : signal path.

Reference information

RESISTOR	:	RN	METAL FILM
	:	RC	SOLID
	:	FPRD	NONFLAMMABLE CARBON
	:	FUSE	NONFLAMMABLE FUSIBLE
	:	RS	NONFLAMMABLE METAL OXIDE
	:	RB	NONFLAMMABLE CEMENT
	:	RW	NONFLAMMABLE WIREWOUND
	:	⋇	ADJUSTMENT RESISTOR
COIL	:	LF-8L	MICRO INDUCTOR
CAPACITOR	:	TA	TANTALUM
	:	PS	STYROL
	:	PP	POLYPROPYLENE
	:	PT	MYLAR
	:	MPS	METALIZED POLYESTER
	:	MPP	METALIZED POLYPROPYLENE
	:	ALB	BIPOLAR
	:	ALT	HIGH TEMPERATURE
	:	ALR	HIGH RIPPLE

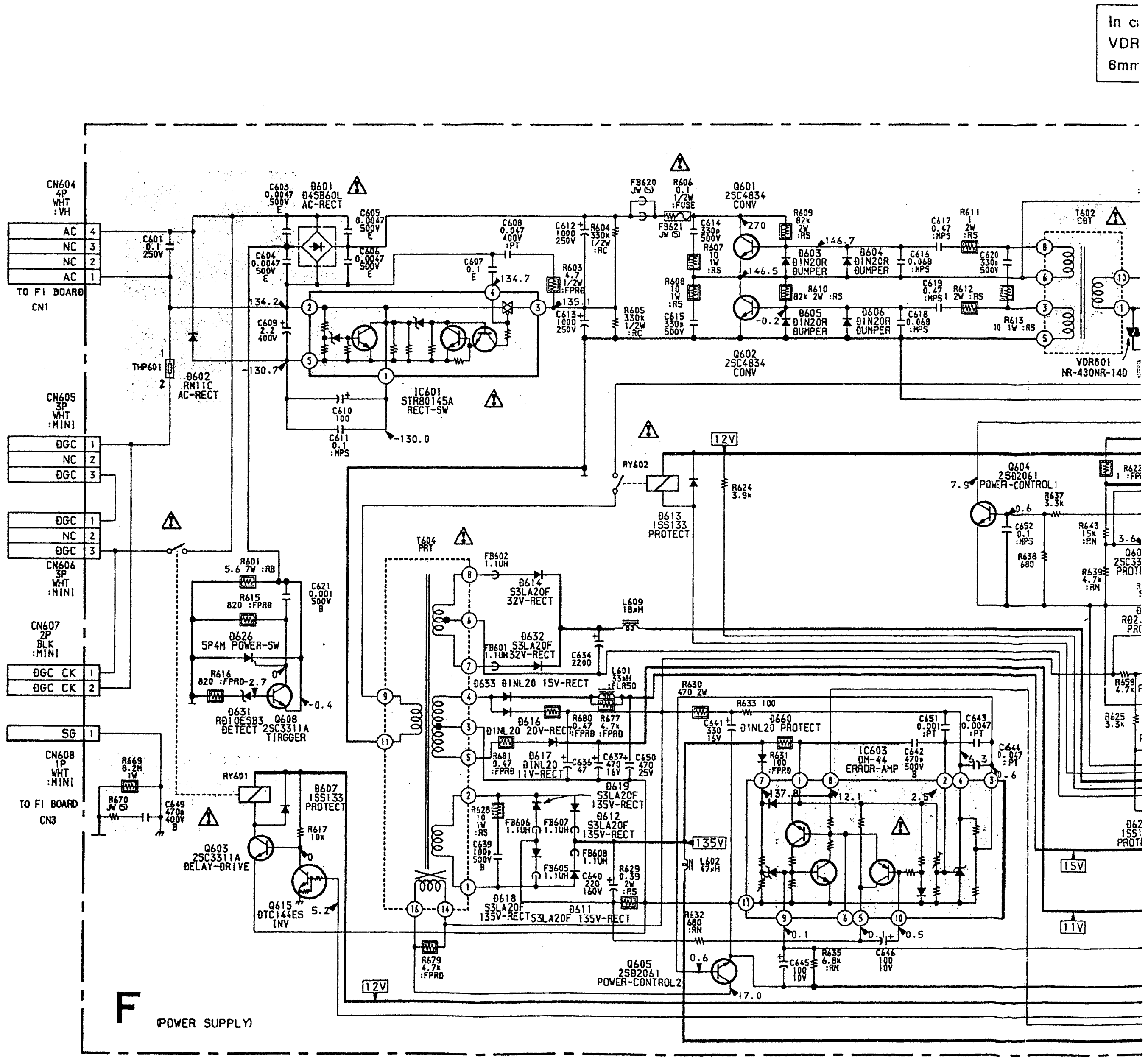
(1) SCHEMATIC DIAGRAMS OF F, F1 AND H2 BOARDS

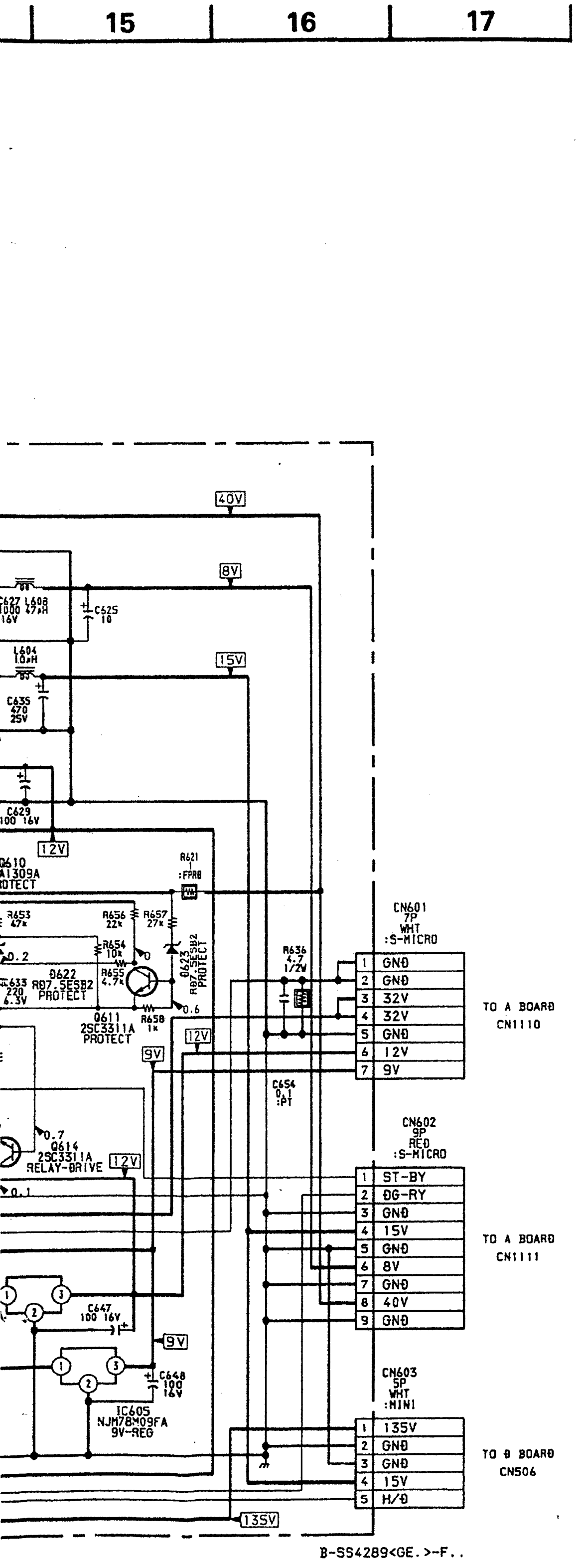

H2 (SIRCSRECEIVER, INDICATOR AC IN)
IC1901 SBX-1618
STBY5V
RESP
TO A BOARD CN1121
CN1901 8P YEL :S-MICRO
CN1904 4P WHT :VH
S1901
AC IN 110V-240V 50/60Hz (KV-S29JN1 S34JN1)
220V-240V 50/60Hz (KV-S29MN1 S29SN1 S34MN1 S34SN1)
CN1905 3P WHT :VH TO F1 BOARD CN2
B-SS2959<HE.>-H2.


F1 (LFT)
TO F BOARD CN604
TO A BOARD CN1106
TO F BOARD CN608
TO H2 BOARD CN1905
CN1 4P WHT :VH
CN2 3P WHT :VH
CN4 1P WHT :MINI
CN3 *12
B-SS4289<GE.>-F1.

F1 BOARD *MARK LIST

	KV-S29MN1/S34MN1 S29JN1/S34JN1	KV-S29SN1/S34SN1
*1 C1	0.1 250V	0.22 250V
*2 JW9	10MM	OFF
*3 JW10	10MM	OFF
*4 JW11	10MM	OFF
*5 JW12	10MM	OFF
*6 T1	1.8MH 1-424-585-11	1.8MH 1-424-183-11
*7 T2	1.8MH 1-424-585-11	1.8MH 1-424-183-11
*8 T3	————	1.8MH 1-424-183-11
*9 C2	————	0.22 250V
*10 C3	————	0.001 400V
*11 C4	————	0.001 400V
*12 CN3	————	1p WHT MINI


F (POWER SUPPLY)
TO F1 BOARD CN1
TO F1 BOARD CN3
IC601 STR80145A RECT-5V
IC603 DN-44 ERROR-AMP
T604 PRT
RY601
RY602
VDR601 NR-430HR-14D
Q601 2SC4834 CONV
Q602 2SC4834 CONV
Q604 2SD2061 POWER-CONTROL1
Q605 2SD2061 POWER-CONTROL2
12V
135V
15V
11V


15
16
17
40V
8V
15V
12V
9V
135V
CN601
7P
WHT
:S-MICRO
1 GND
2 GND
3 32V
4 32V
5 GND
6 12V
7 9V
TO A BOARD
CN1110
CN602
9P
RED
:S-MICRO
1 ST-BY
2 DG-RY
3 GND
4 15V
5 GND
6 8V
7 GND
8 40V
9 GND
TO A BOARD
CN1111
CN603
5P
WHT
:MINI
1 135V
2 GND
3 GND
4 15V
5 H/D
TO D BOARD
CN506
Q610
2SA1309A
PROTECT
Q611
2SC3311A
PROTECT
Q614
2SC3311A
RELAY-DRIVE
IC605
NJM78M09FA
9V-REG
B-SS4289<GE.>-F..

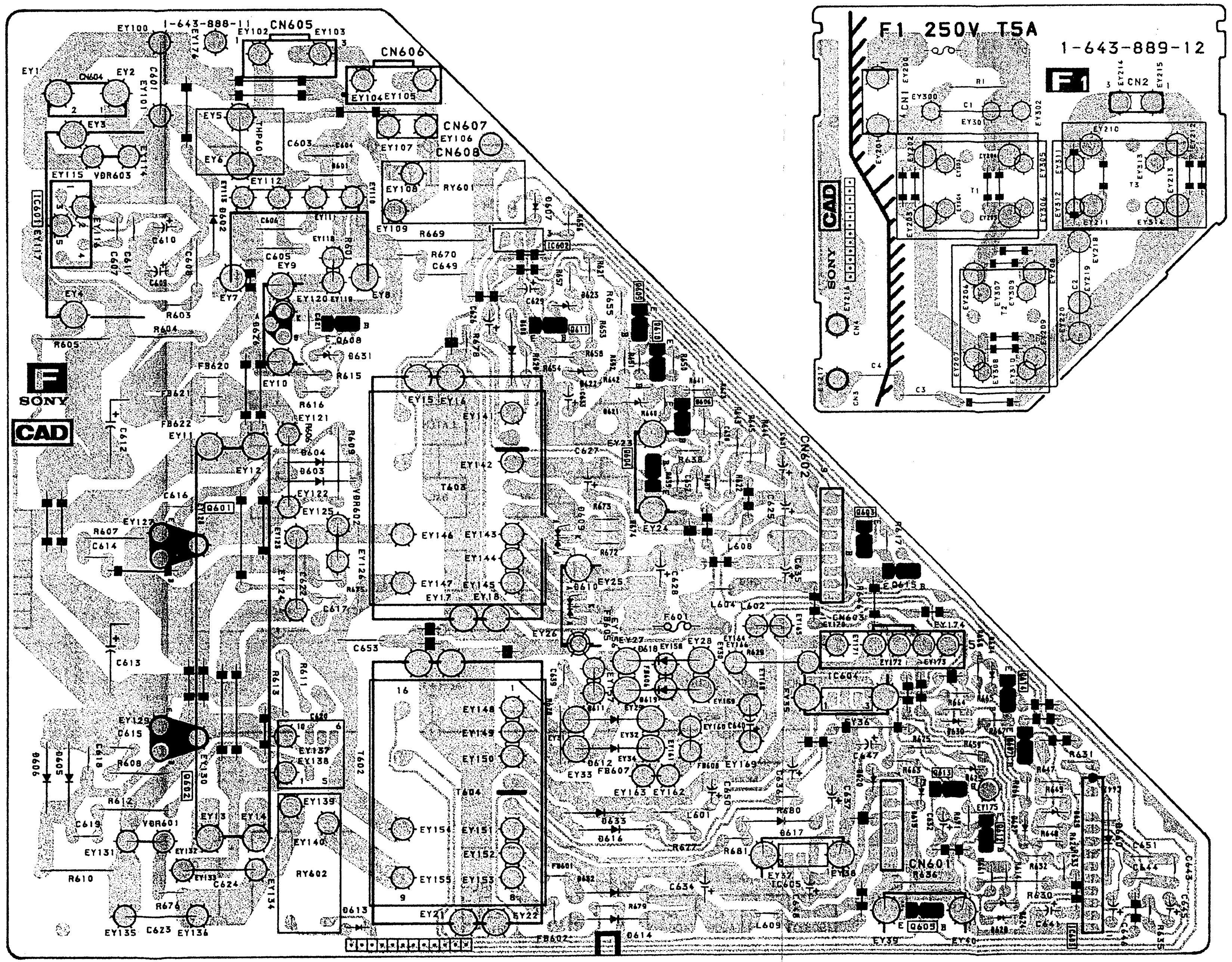
F [POWER SUPPLY]

F1 [LFT, AC IN]

H2 [SIRCSRECEIVER
INDICATOR]

PRINTED WIRING BOARDS

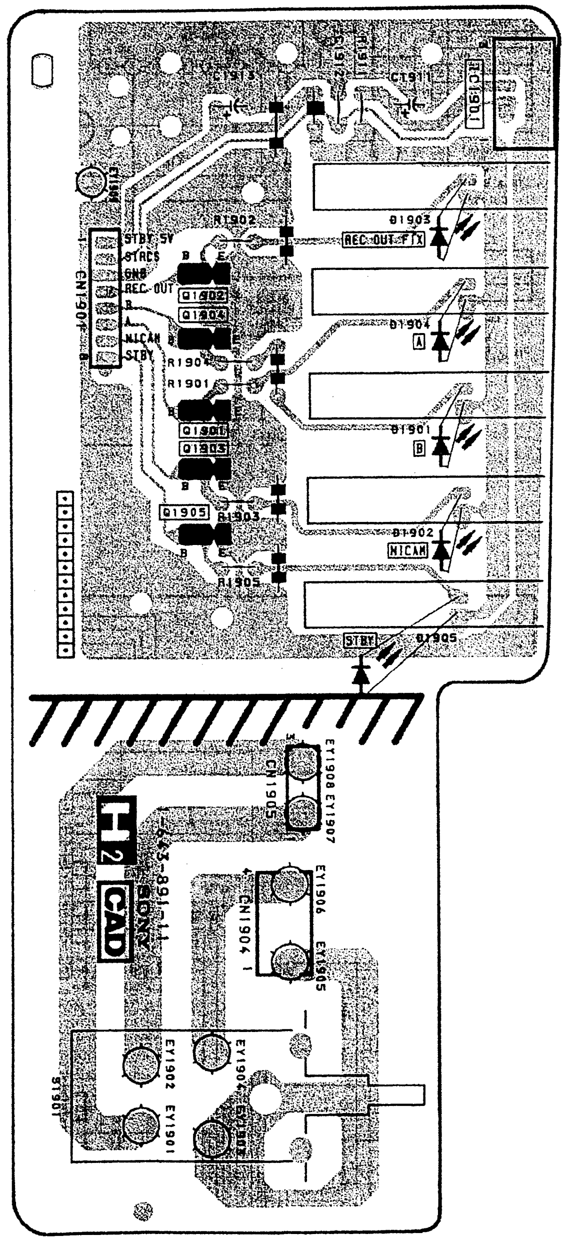
– F Board –


1-643-888-11
CN605
CN606
CN607
CN608
F
SONY
CAD
IC601
IC602
IC603
IC604
CN601
CN602
CN603
T602
T603
T604
RY601
RY602

– F1 Board –

F1 250V T5A
1-643-889-12
F1
CN2
CAD
SONY
T1
T3
CN1

– H2 Board –

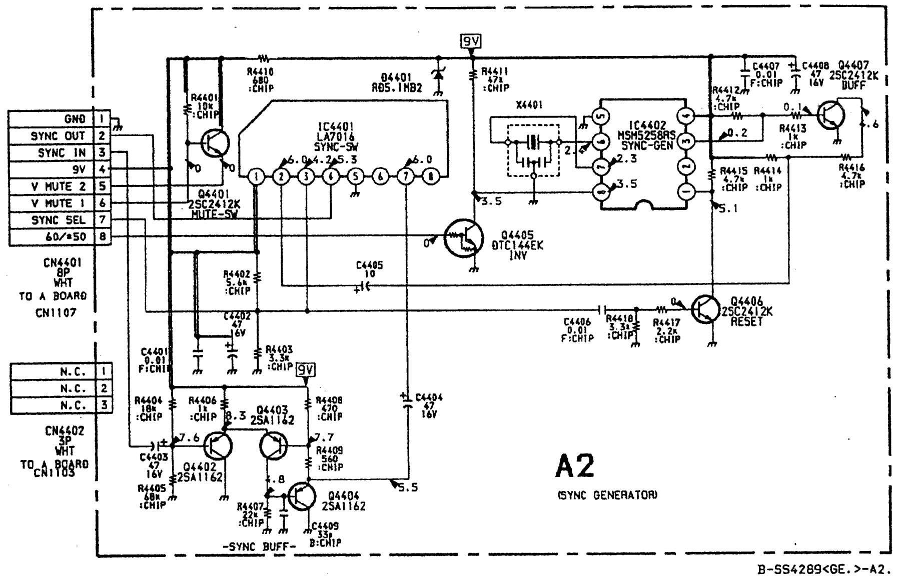

CN1901
STBY 5V
SIRCS
GND
REC OUT
NICAM
STBY
REC·OUT·F.TX
NICAM
STBY
H2
SONY
CAD
CN1904
1-643-891-11

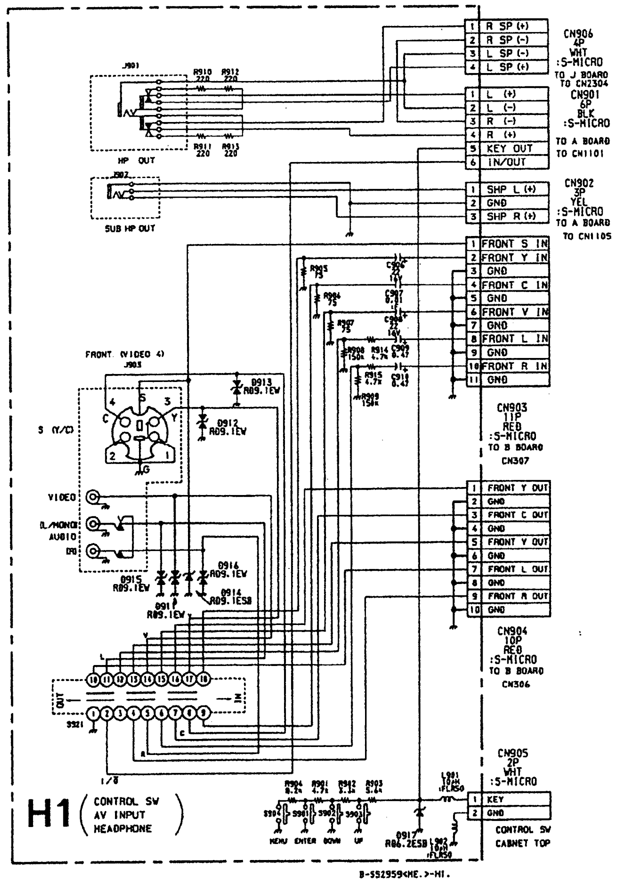
KV-S29JN1/S29MN1/S29SN1/S34JN1/S34MN1/S34SN1
RM-821

(2) SCHEMATIC DIAGRAMS OF A2, H1 AND S BOARDS

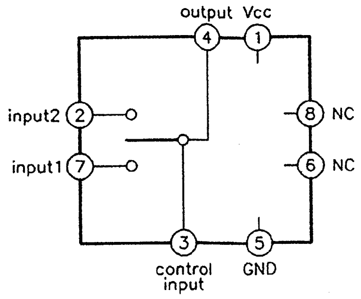
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

A B C D E F G H I J

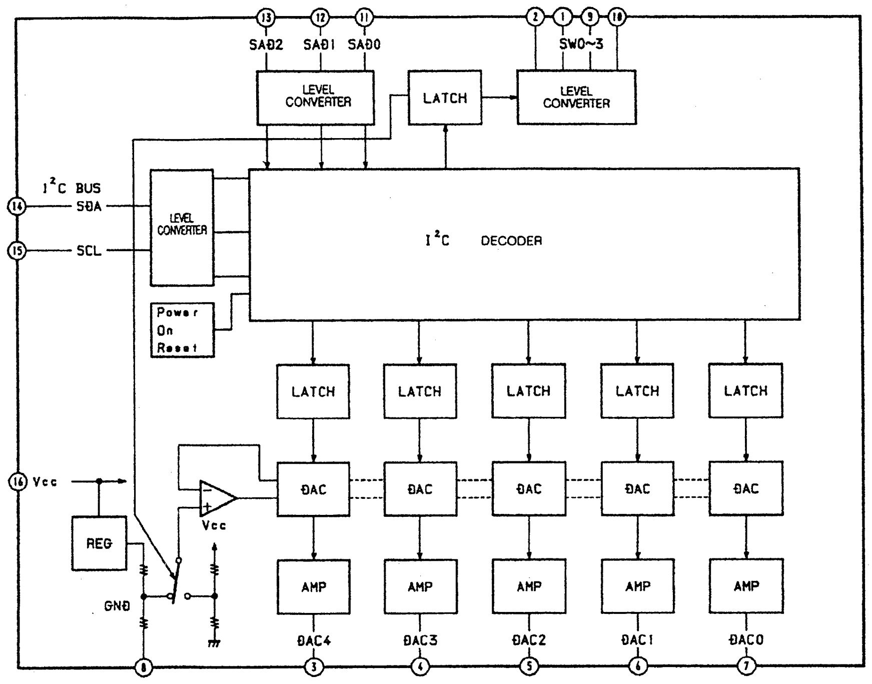

GND 1
SYNC OUT 2
SYNC IN 3
9V 4
V MUTE 2 5
V MUTE 1 6
SYNC SEL 7
60/*50 8
CN4401 8P WHT TO A BOARD CN1107
N.C. 1
N.C. 2
N.C. 3
CN4402 3P WHT TO A BOARD CN1105
9V
IC4401 LA7016 SYNC-SW
IC4402 MSM5258RS SYNC-GEN
X4401
Q4401 2SC2412K MUTE-SW
Q4405 DTC144EK INV
Q4406 2SC2412K RESET
Q4407 2SC2412K BUFF
Q4402 2SA1162
Q4403 2SA1162
Q4404 2SA1162
-SYNC BUFF-
A2
(SYNC GENERATOR)
B-SS4289<GE.>-A2.


1 R SP (+)
2 R SP (-)
3 L SP (-)
4 L SP (+)
CN906 4P WHT :S-MICRO TO J BOARD TO CN2304
1 L (+)
2 L (-)
3 R (-)
4 R (+)
5 KEY OUT
6 IN/OUT
CN901 6P BLK :S-MICRO TO A BOARD TO CN1101
1 SHP L (+)
2 GND
3 SHP R (+)
CN902 3P YEL :S-MICRO TO A BOARD TO CN1105
1 FRONT S IN
2 FRONT Y IN
3 GND
4 FRONT C IN
5 GND
6 FRONT V IN
7 GND
8 FRONT L IN
9 GND
10 FRONT R IN
11 GND
CN903 11P RED :S-MICRO TO B BOARD CN307
1 FRONT Y OUT
2 GND
3 FRONT C OUT
4 GND
5 FRONT Y OUT
6 GND
7 FRONT L OUT
8 GND
9 FRONT R OUT
10 GND
CN904 10P RED :S-MICRO TO B BOARD CN306
1 KEY
2 GND
CN905 2P WHT :S-MICRO
CONTROL SW CABNET TOP
HP OUT
SUB HP OUT
FRONT (VIDEO 4)
S (Y/C)
VIDEO
L(MONO) AUDIO
(R)
MENU ENTER DOWN UP
H1 (CONTROL SW AV INPUT HEADPHONE)
B-SS2959<NE.>-H1.

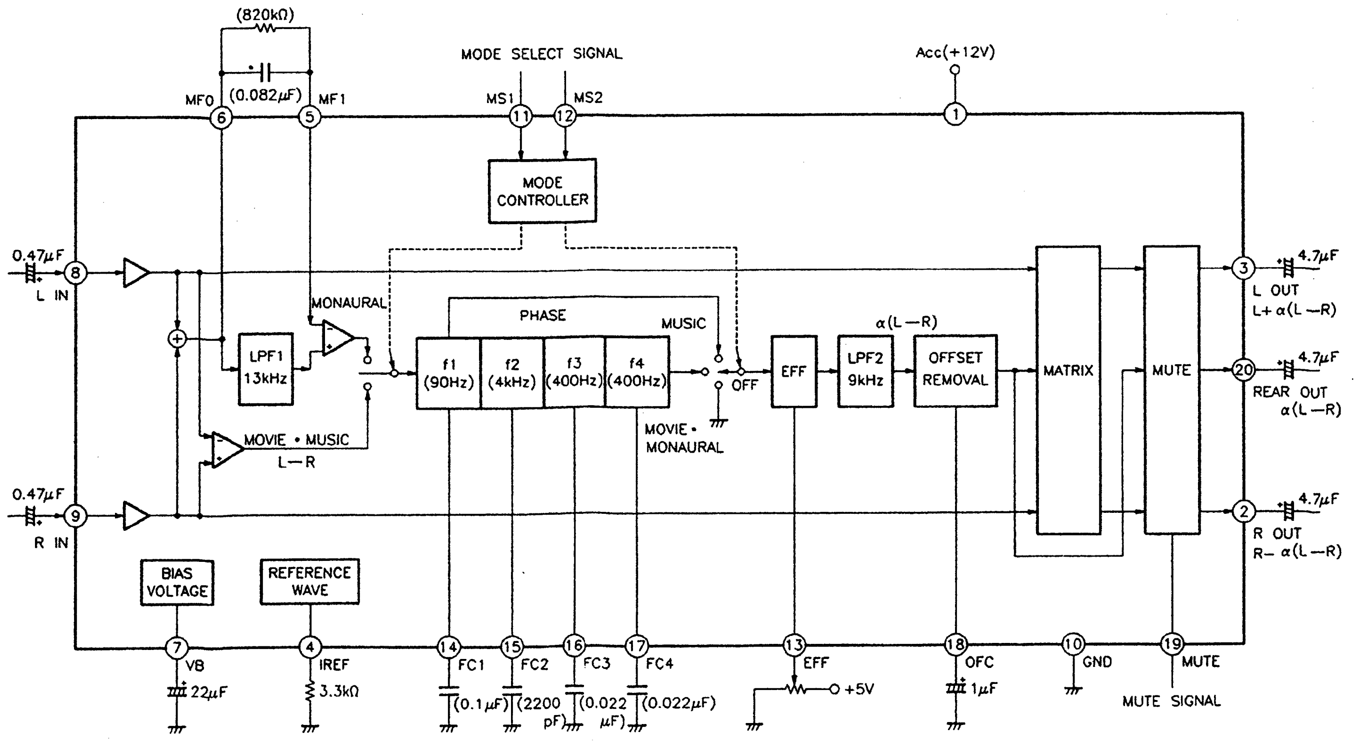
A2 Board IC4401 LA7016

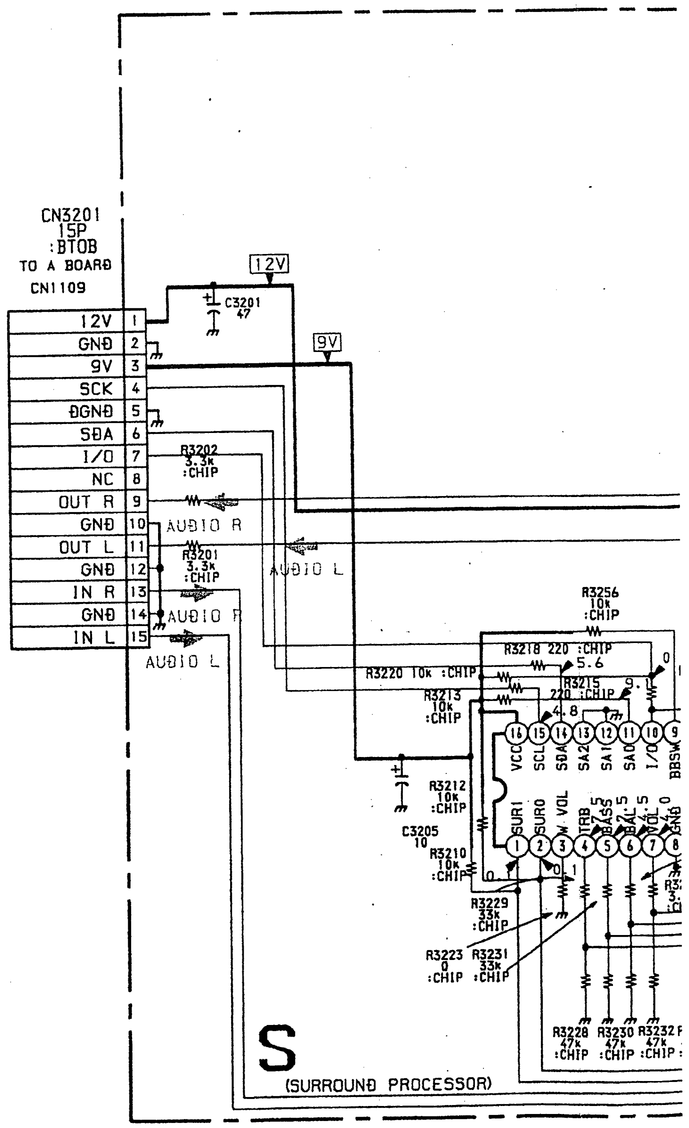

output Vcc
4
1
input2 2
8 NC
input1 7
6 NC
3
5
control input
GND

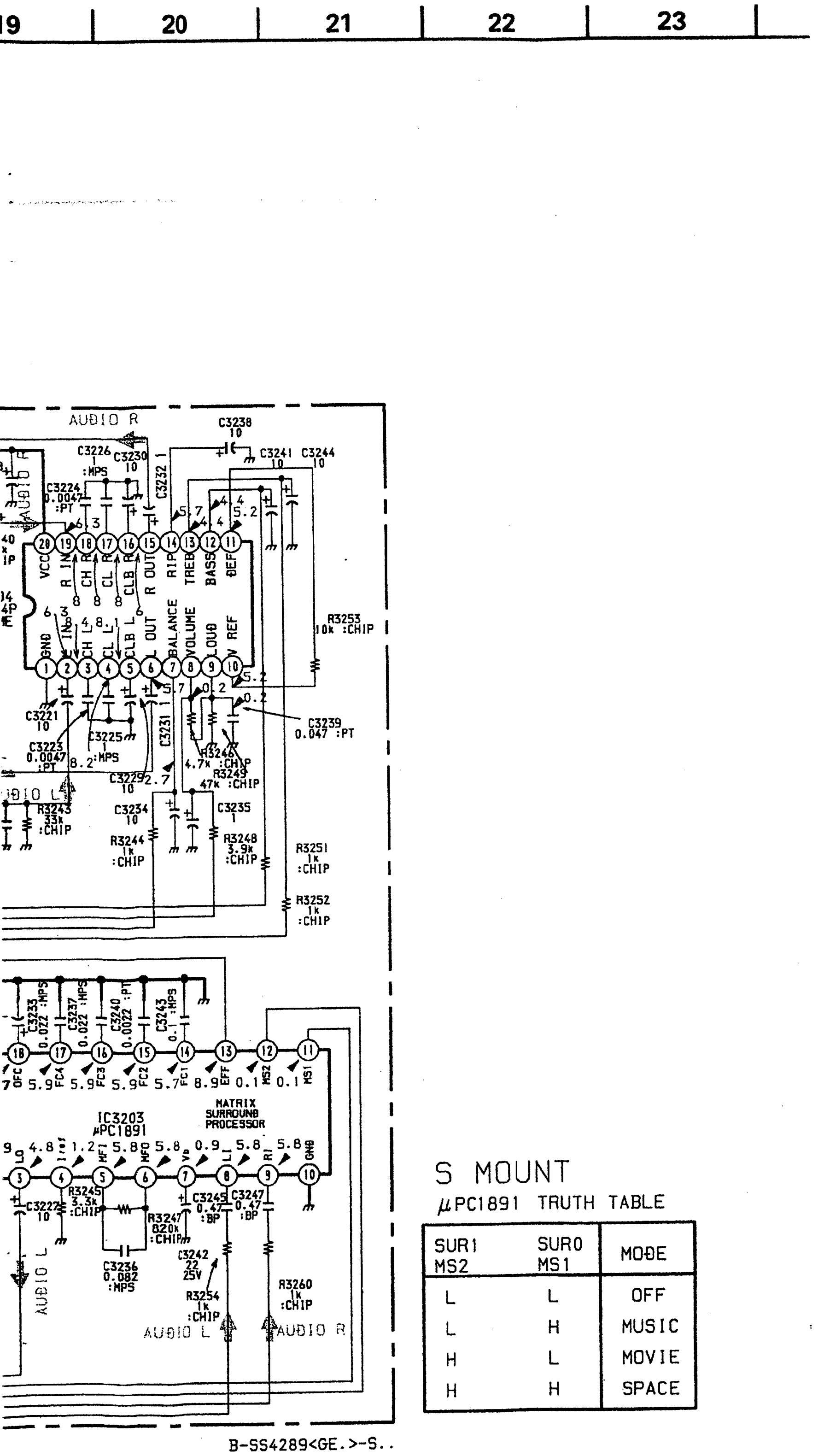
S Board IC3202 CXA1315P


13 12 11
SA02 SA01 SA00
2 1 10
SW0~3
LEVEL CONVERTER
LATCH
LEVEL CONVERTER
I²C BUS
14 SDA
15 SCL
LEVEL CONVERTER
I²C DECODER
Power On Reset
LATCH LATCH LATCH LATCH LATCH
16 Vcc
REG
Vcc
GND
DAC DAC DAC DAC DAC
AMP AMP AMP AMP AMP
DAC4 DAC3 DAC2 DAC1 DAC0
8 3 4 5 6 7

S Board IC3203 μPC1891


(820kΩ)
(0.082μF)
MF0 6
MF1 5
MODE SELECT SIGNAL
MS1 11
MS2 12
Acc(+12V) 1
MODE CONTROLLER
0.47μF
8 L IN
9 R IN
LPF1 13kHz
MONAURAL
MOVIE • MUSIC
L−R
PHASE
MUSIC
f1 (90Hz)
f2 (4kHz)
f3 (400Hz)
f4 (400Hz)
MOVIE • MONAURAL
OFF
EFF
α(L−R)
LPF2 9kHz
OFFSET REMOVAL
MATRIX
MUTE
3 4.7μF L OUT L+α(L−R)
20 4.7μF REAR OUT α(L−R)
2 4.7μF R OUT R−α(L−R)
BIAS VOLTAGE
REFERENCE WAVE
7 VB 22μF
4 IREF 3.3kΩ
14 FC1 (0.1μF)
15 FC2 (2200 pF)
16 FC3 (0.022 μF)
17 FC4 (0.022μF)
13 EFF +5V
18 OFC 1μF
10 GND
19 MUTE
MUTE SIGNAL


CN3201 15P :BTOB TO A BOARD CN1109
12V 1
GND 2
9V 3
SCK 4
DGND 5
SDA 6
I/O 7
NC 8
OUT R 9
GND 10
OUT L 11
GND 12
IN R 13
GND 14
IN L 15
12V
C3201 47
9V
R3202 3.3k :CHIP
R3201 3.3k :CHIP
AUDIO R
AUDIO L
R3256 10k :CHIP
R3218 220 :CHIP
R3220 10k :CHIP
R3213 10k :CHIP
R3215 220 :CHIP
R3212 10k :CHIP
C3205 10
R3210 10k :CHIP
R3229 33k :CHIP
R3223 0 :CHIP
R3231 33k :CHIP
R3228 47k :CHIP
R3230 47k :CHIP
R3232 47k :CHIP
S
(SURROUND PROCESSOR)


19
20
21
22
23
AUDIO R
C3238
C3226
C3230
C3241
C3244
C3224
C3232
R3253 10k :CHIP
VCC
R IN
CH R
CL
CLB R
R OUT
RIP
TREB
BASS
BEF
GND
L IN
CH L
CL
CLB L
L OUT
BALANCE
VOLUME
LOUD
V REF
C3221
C3223
C3225
C3229
C3231
R3246
R3249
C3239 0.047 :PT
AUDIO L
R3243 33k :CHIP
C3234
C3235
R3244 1k :CHIP
R3248 3.9k :CHIP
R3251 1k :CHIP
R3252 1k :CHIP
C3233
C3237
C3240
C3243
IC3203
μPC1891
MATRIX SURROUND PROCESSOR
C3227
R3245 3.3k :CHIP
R3247 820k :CHIP
C3245
C3247
C3236 0.082 :MPS
C3242 22 25V
R3254 1k :CHIP
R3260 1k :CHIP
AUDIO L
AUDIO R
B-SS4289<GE.>-S..

S MOUNT

μPC1891 TRUTH TABLE

SUR1 MS2	SUR0 MS1	MODE
L	L	OFF
L	H	MUSIC
H	L	MOVIE
H	H	SPACE

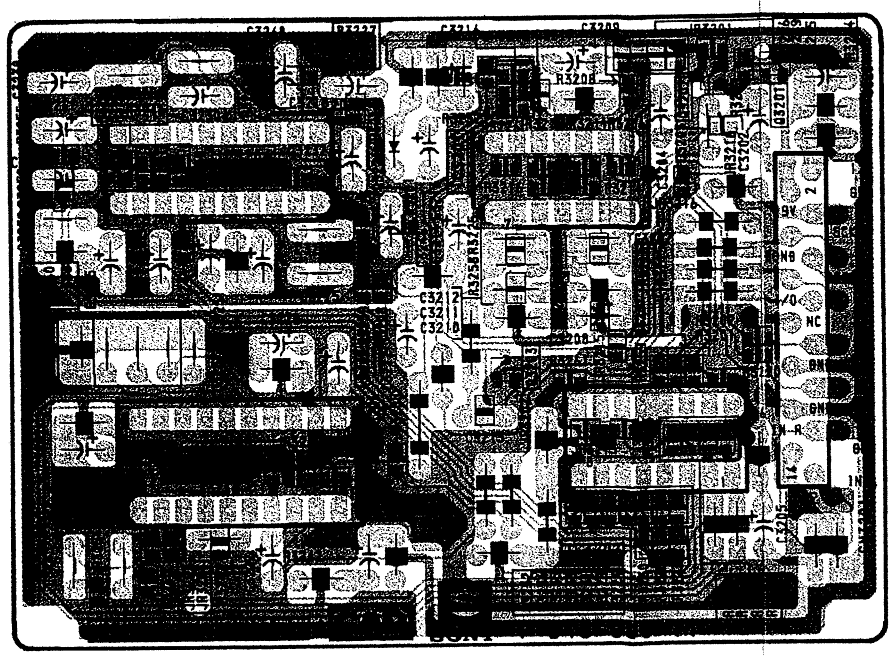
S [SURROUND PROCESSOR]

H1 [CONTROL SW AV INPUT HEADPHONE]

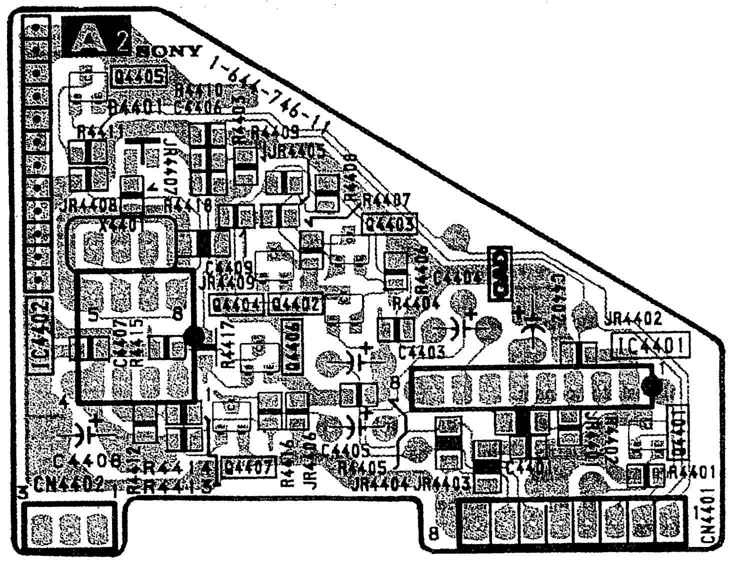
A2 [SYNC GENERATOR]

PRINTED WIRING BOARDS

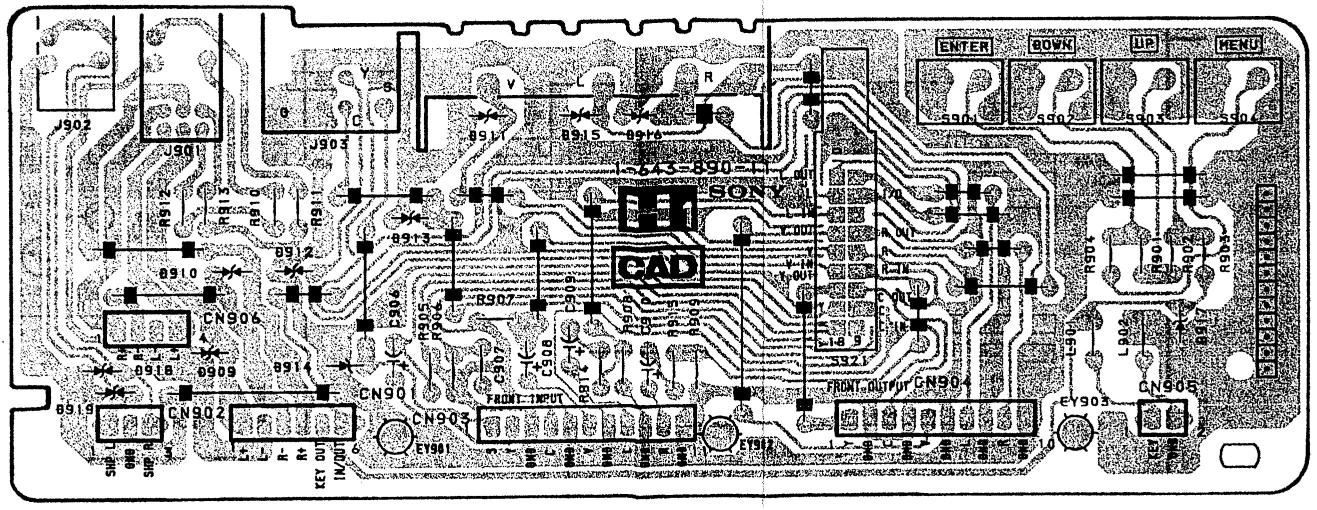
– S Board –


R3208
C3212
C3211
C3210
NC
IN-R

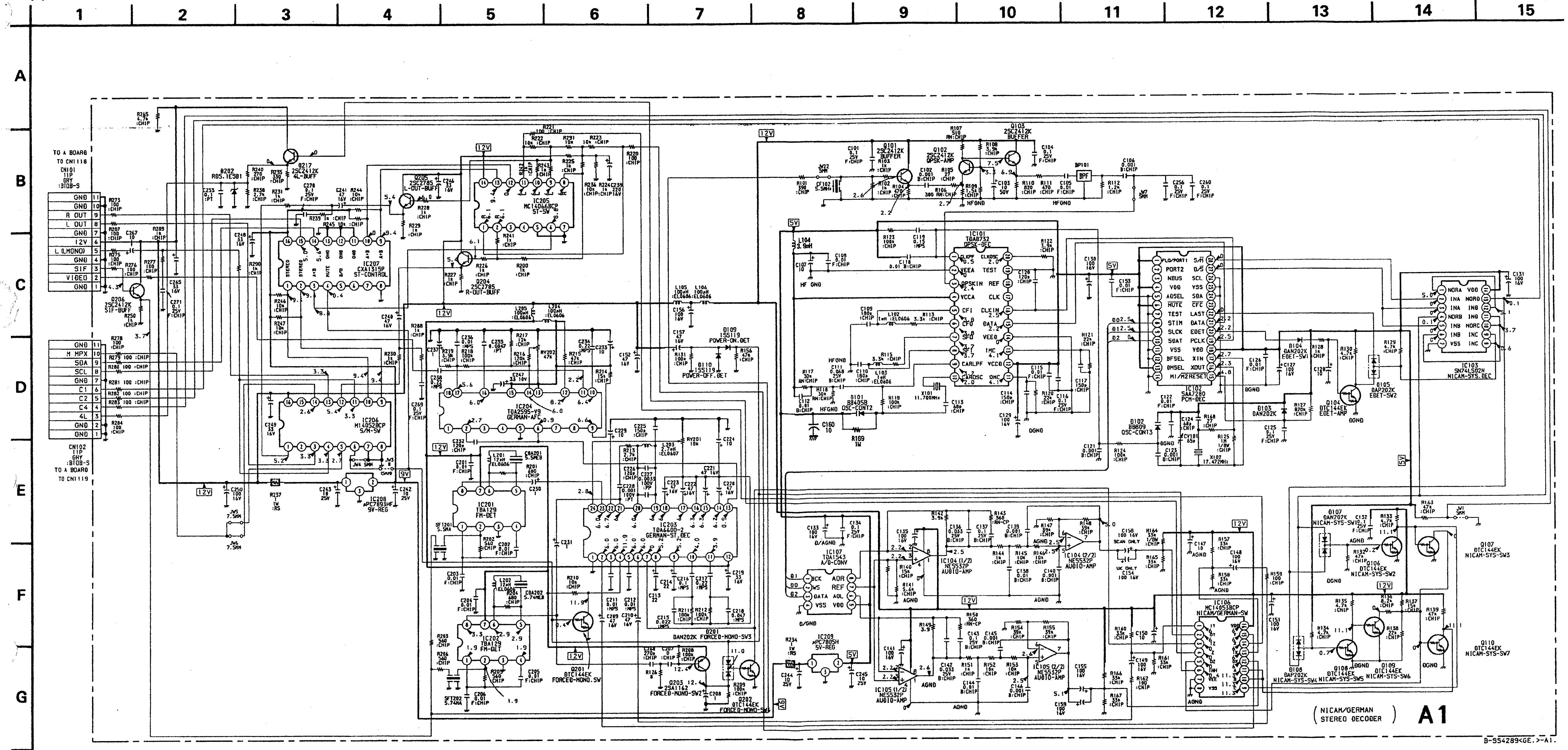
– A2 Board –


A2
SONY
1-641-746-11
Q4405
R4410
R4401
C4406
R4411
R4409
JR4405
R4407
JR4408
R4418
X4401
Q4403
JR4409
C4409
Q4404
Q4402
R4417
R4415
C4407
Q4406
IC4402
IC4401
JR4402
C4403
C4408
CN4402
Q4407
C4405
R4405
JR4404
JR4403
R4401
CN4401

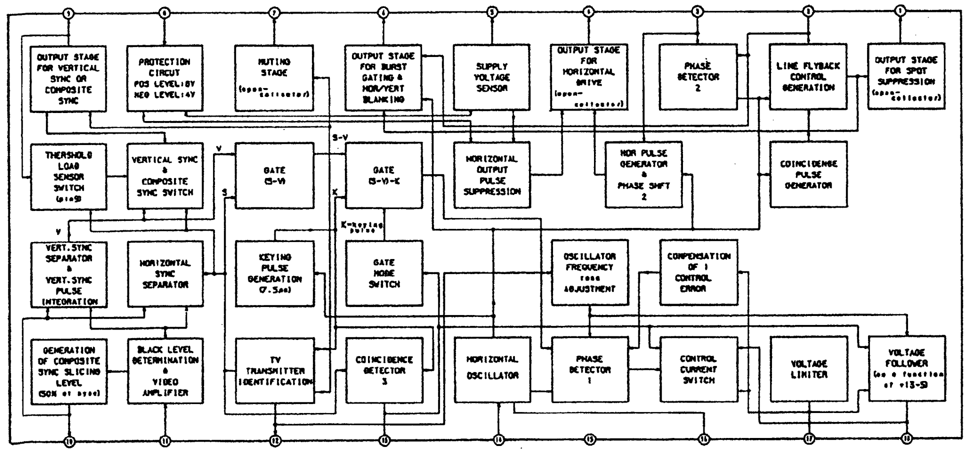
– H1 Board –


ENTER
DOWN
UP
MENU
J902
J901
J903
S901
S902
S903
S904
B911
B915
B916
B913
B910
B912
B907
B918
B909
B914
B919
CN906
CN901
CN902
CN903
CN904
CN905
CAD
SONY
FRONT INPUT
FRONT OUTPUT
EY901
EY903
S92

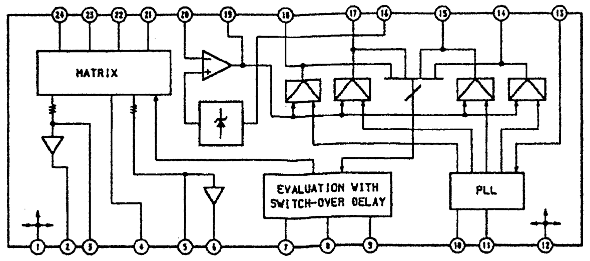
(3) SCHEMATIC DIAGRAM OF A1 BOARD


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
A
B
C
D
E
F
G
TO A BOARD TO CN1118
CN101 11P :B10B-S
GND
R OUT
L OUT
12V
L O(MONO)
SIF
VIDEO
CN102 11P GRY :B10B-S TO A BOARD TO CN1119
H MPX
SDA
SCL
C1
C2
C4
4L
Q217 2SC2412K 4L-BUFF
Q205 2SC2785 L-OUT-BUFF
Q204 2SC2785 R-OUT-BUFF
Q206 2SC2412K SIF-BUFF
IC207 CXA1315P S1-CONTROL
IC205 MC14066BCP ST-SW
IC206 M14052BCP S/M-SW
IC204 TDA2595-V9 GERMAN-AFC
IC201 TBA129 FM-DET
IC202 TBA129 FM-DET
IC203 TDA6600-2 GERMAN-ST.DEC
IC208 µPC7805HF 5V-REG
D109 1SS119 POWER-ON.DET
D110 1SS119 POWER-OFF.DET
Q201 DTC144EK FORCED-MONO.SV
Q203 2SA1162 FORCED-MONO-SW2
Q202 DTC144EK FORCED-MONO-SW3
D201 DAN202K FORCED-MONO-SV3
Q101 2SC2412K BUFFER
Q102 2SC2412K QPSK-AMP
Q103 2SC2412K BUFFER
BPF
IC101 TDA8732 QPSK-DEC
D101 BB405B OSC-CONT2
X101 11.700MHz
IC102 SAA7280 PCM-DEC
D102 BB609 OSC-CONT3
X102 17.472MHz
D103 DAN202K
D104 DAN202K EDET-SW1
D105 DAP202K EDET-SW2
Q104 DTC144EK EDET-AMP
IC103 SN74LS02N NICAM-SYS-DEC
IC107 TDA1543 A/D-CONV
IC104 (1/2) NE5532P AUDIO-AMP
IC104 (2/2) NE5532P AUDIO-AMP
IC105 (1/2) NE5532P AUDIO-AMP
IC105 (2/2) NE5532P AUDIO-AMP
IC109 µPC7805H 5V-REG
IC106 MC14053BCP NICAM/GERMAN-SW
Q107 DAN202K NICAM-SYS-SV10
Q106 DTC144EK NICAM-SYS-SW2
Q107 DTC144EK NICAM-SYS-SW3
Q108 DAP202K NICAM-SYS-SW4
Q108 DTC144EK NICAM-SYS-SW5
Q109 DTC144EK NICAM-SYS-SW6
Q110 DTC144EK NICAM-SYS-SW7
12V
5V
(NICAM/GERMAN STEREO DECODER) A1
B-SS4289<GE.>-A1.

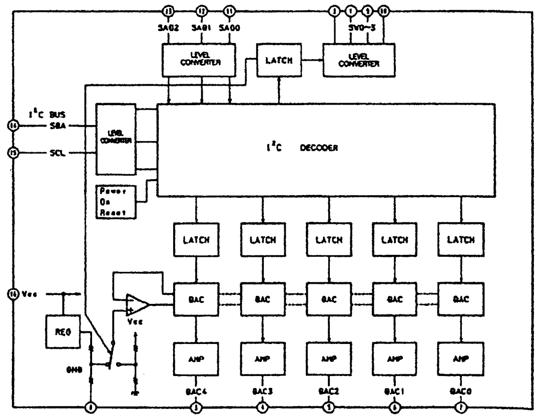
A1 Board IC204 TDA2595-V9


OUTPUT STAGE FOR VERTICAL SYNC OR COMPOSITE SYNC
PROTECTION CIRCUT POS LEVEL:8V NEG LEVEL:4V
MUTING STAGE (open-collector)
OUTPUT STAGE FOR BURST GATING & HOR/VERT BLANKING
SUPPLY VOLTAGE SENSOR
OUTPUT STAGE FOR HORIZONTAL DRIVE (open-collector)
PHASE DETECTOR 2
LINE FLYBACK CONTROL GENERATION
OUTPUT STAGE FOR SPOT SUPPRESSION (open-collector)
THERSHOLD LOAD SENSOR SWITCH (pin5)
VERTICAL SYNC & COMPOSITE SYNC SWITCH
V
S-V
GATE (S-V)
GATE (S-V)-K
S
K
HORIZONTAL OUTPUT PULSE SUPPRESSION
HOR PULSE GENERATOR & PHASE SHFT 2
COINCIDENCE PULSE GENERATOR
K-keying pulse
VERT. SYNC SEPARATOR & VERT. SYNC PULSE INTEGRATION
HORIZONTAL SYNC SEPARATOR
KEYING PULSE GENERATION (7.5µs)
GATE MODE SWITCH
OSCILLATOR FREQUENCY rose ADJUSTMENT
COMPENSATION OF I CONTROL ERROR
GENERATION OF COMPOSITE SYNC SLICING LEVEL (50% of sync)
BLACK LEVEL DETERMINATION & VIDEO AMPLIFIER
TV TRANSMITTER IDENTIFICATION
COINCIDENCE DETECTOR 3
HORIZONTAL OSCILLATOR
PHASE DETECTOR 1
CONTROL CURRENT SWITCH
VOLTAGE LIMITER
VOLTAGE FOLLOWER (as a function of +13-5)

A1 Board IC203 TDA6600-2


MATRIX
EVALUATION WITH SWITCH-OVER DELAY
PLL

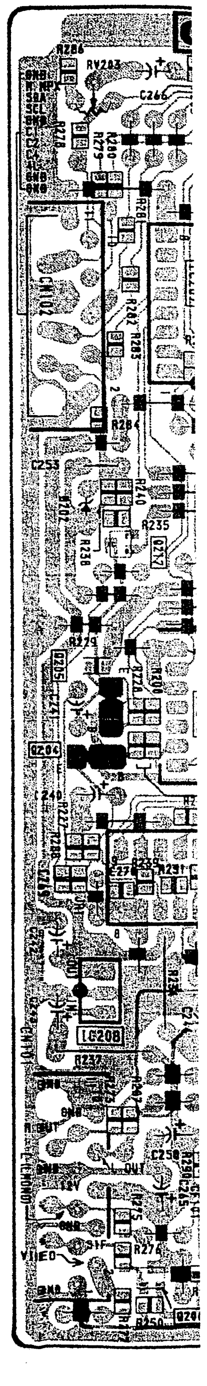
A1 Board IC207 CXA1315P

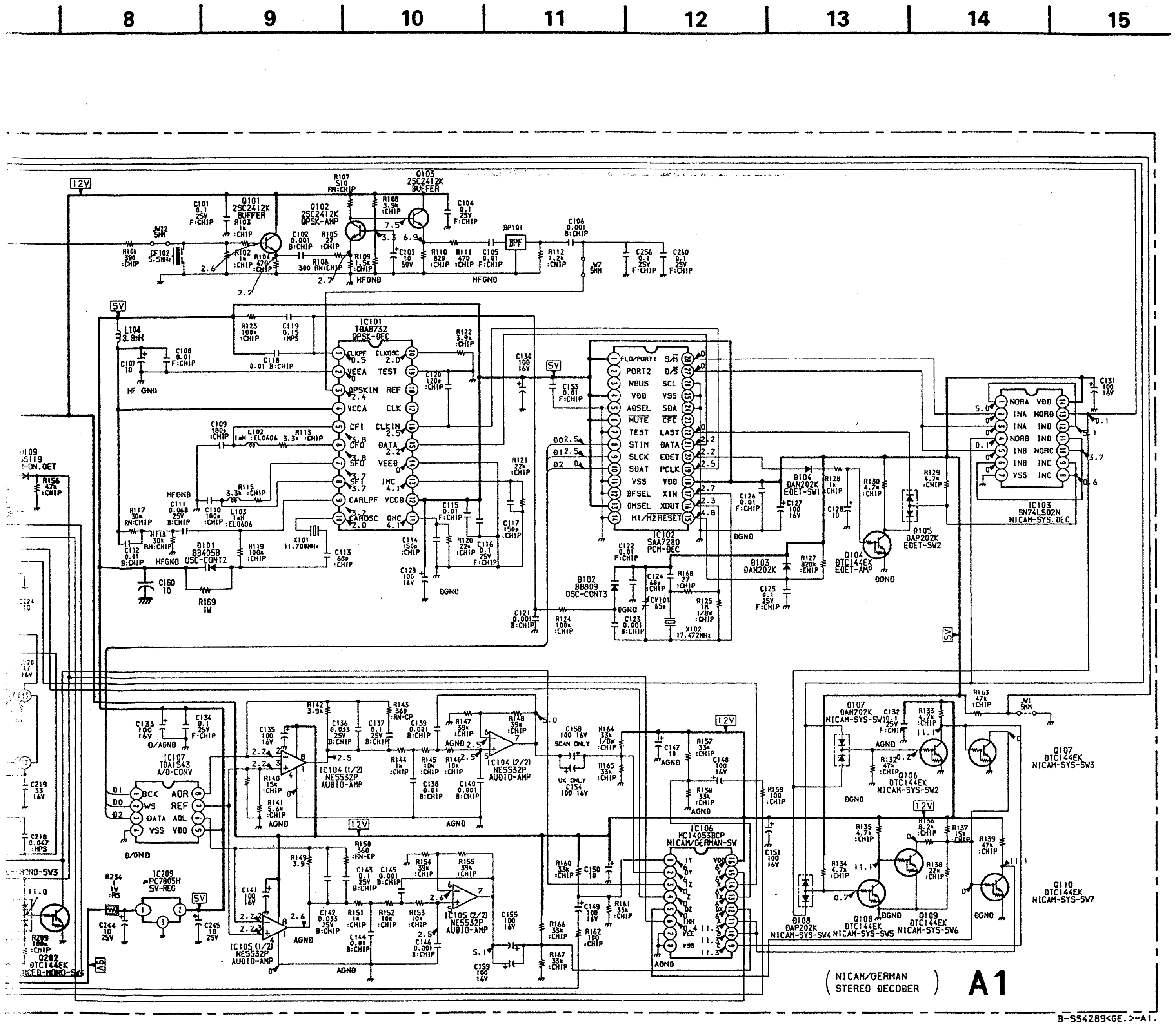

SAD2
SAD1
SAD0
SVO~3
LEVEL CONVERTER
LATCH
LEVEL CONVERTER
I²C BUS
SDA
SCL
LEVEL CONVERTER
I²C DECODER
Power On Reset
LATCH
DAC
AMP
Vcc
REG
GND
DAC4
DAC3
DAC2
DAC1
DAC0

A1 [NICAM/
STERE

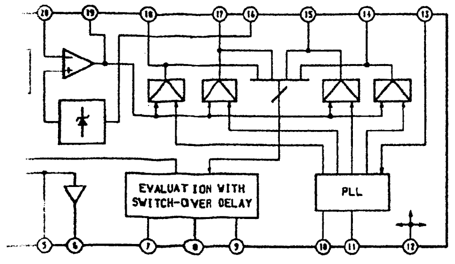
PRINTED WIRIN

– A1 Board –

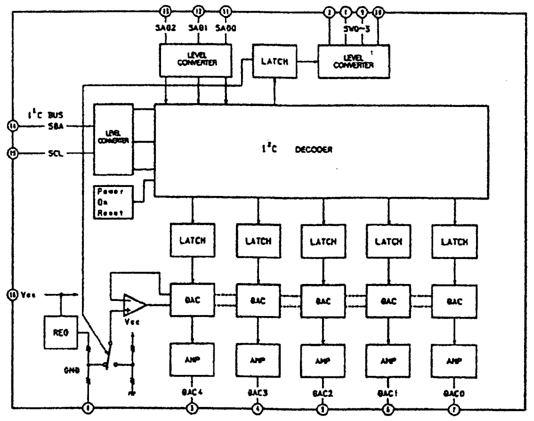

IC208
VIDEO


8
9
10
11
12
13
14
15
12V
5V
IC101 TDA8732 QPSK-DEC
IC102 SAA7280 PCH-DEC
IC103 SN74LS02N NICAM-SYS-DEC
IC104 (1/2) NE5532P AUDIO-AMP
IC104 (2/2) NE5532P AUDIO-AMP
IC105 (1/2) NE5532P AUDIO-AMP
IC105 (2/2) NE5532P AUDIO-AMP
IC106 NC14053BCP NICAM/GERMAN-SW
IC107 TDA1543 A/D-CONV
IC209 μPC7805H 5V-REG
Q101 2SC2412K BUFFER
Q102 2SC2412K QPSK-AMP
Q103 2SC2412K BUFFER
BPF
X101 11.70MHz
X102 17.472MHz
HFGND
AGND
DGND
NICAM/GERMAN STEREO DECODER
A1

03 TDA6600-2


EVALUATION WITH SWITCH-OVER DELAY
PLL

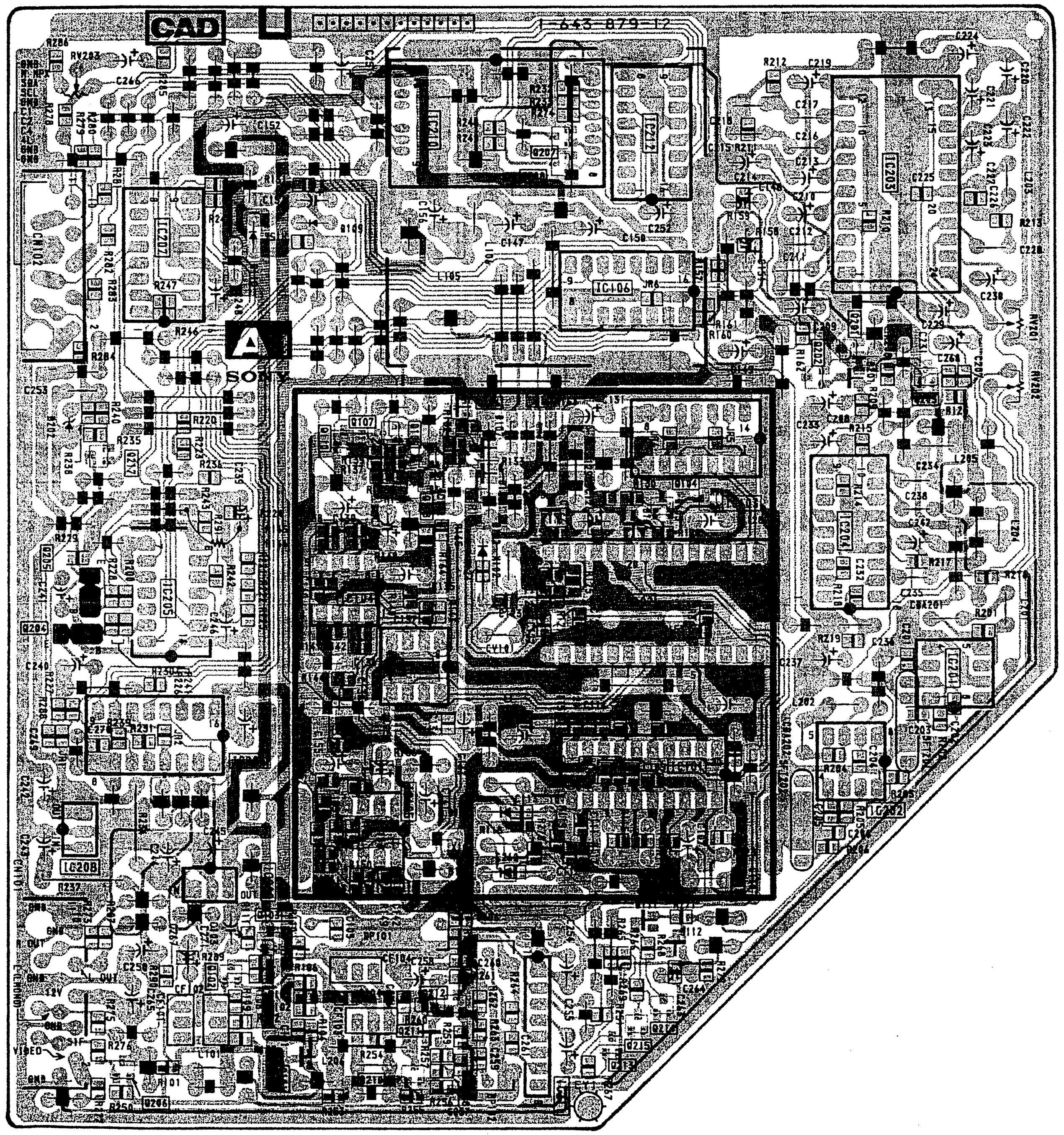
A1 Board IC207 CXA1315P


LEVEL CONVERTER
LATCH
LEVEL CONVERTER
I²C BUS
SDA
SCL
LEVEL CONVERTER
I²C DECODER
Power On Reset
LATCH
DAC
AMP
Vcc
REG
GND

A1 [NICAM/GERMAN STEREO DECODER]

PRINTED WIRING BOARD

– A1 Board –

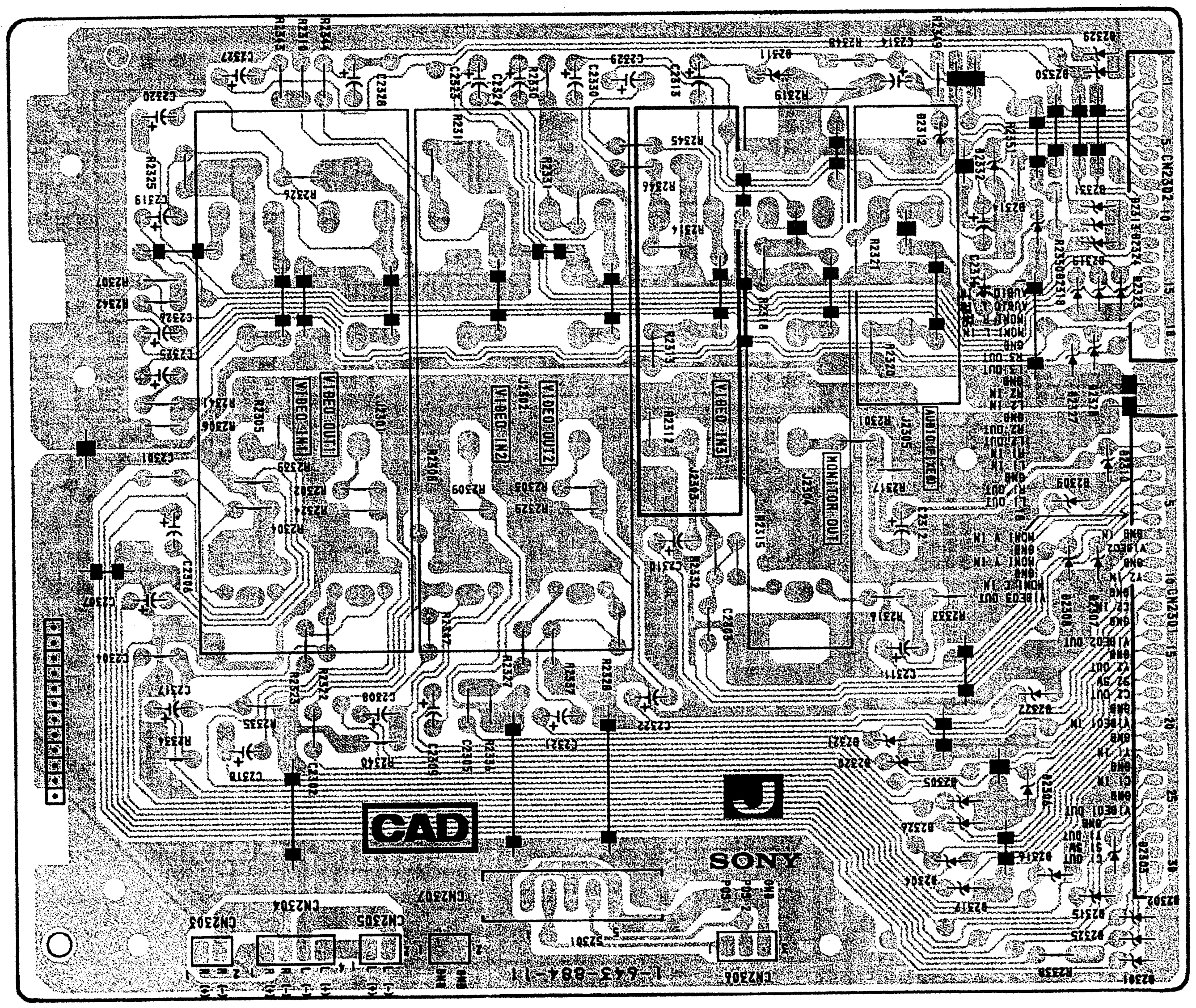

CAD
643 879 12
SONY
A1

J [INPUT, OUTPUT]

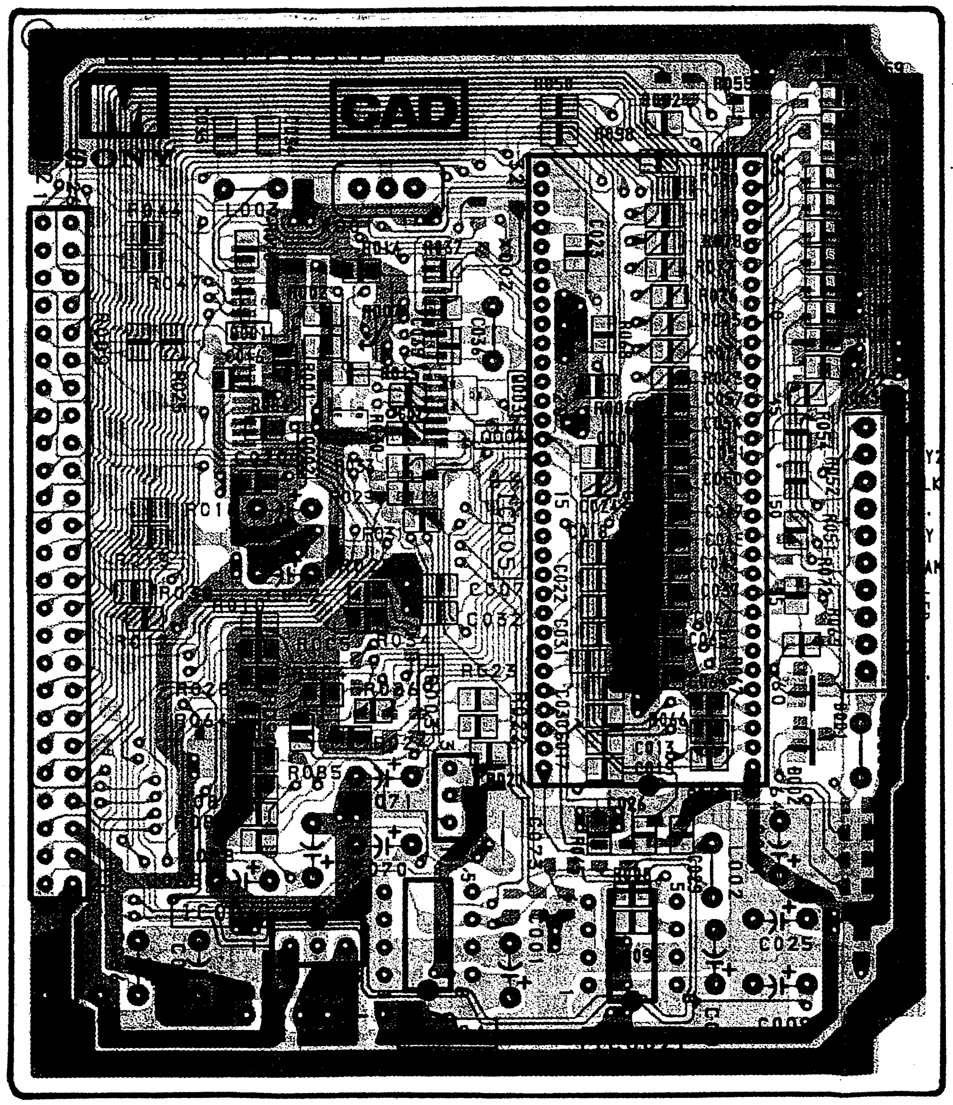
M [MICRO-CONTROLLER]

PRINTED WIRING BOARDS

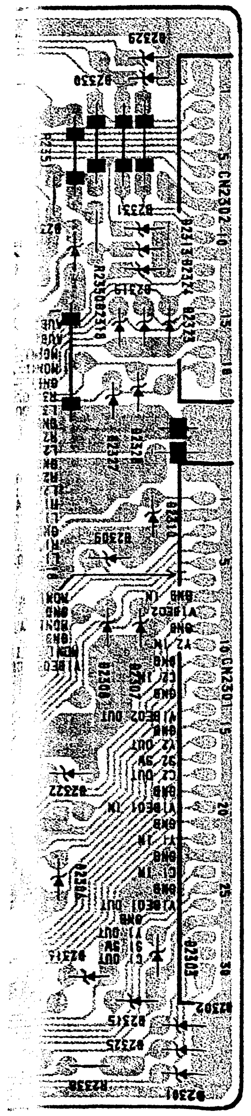
– J Board –



– M Board (Conductor Side) –

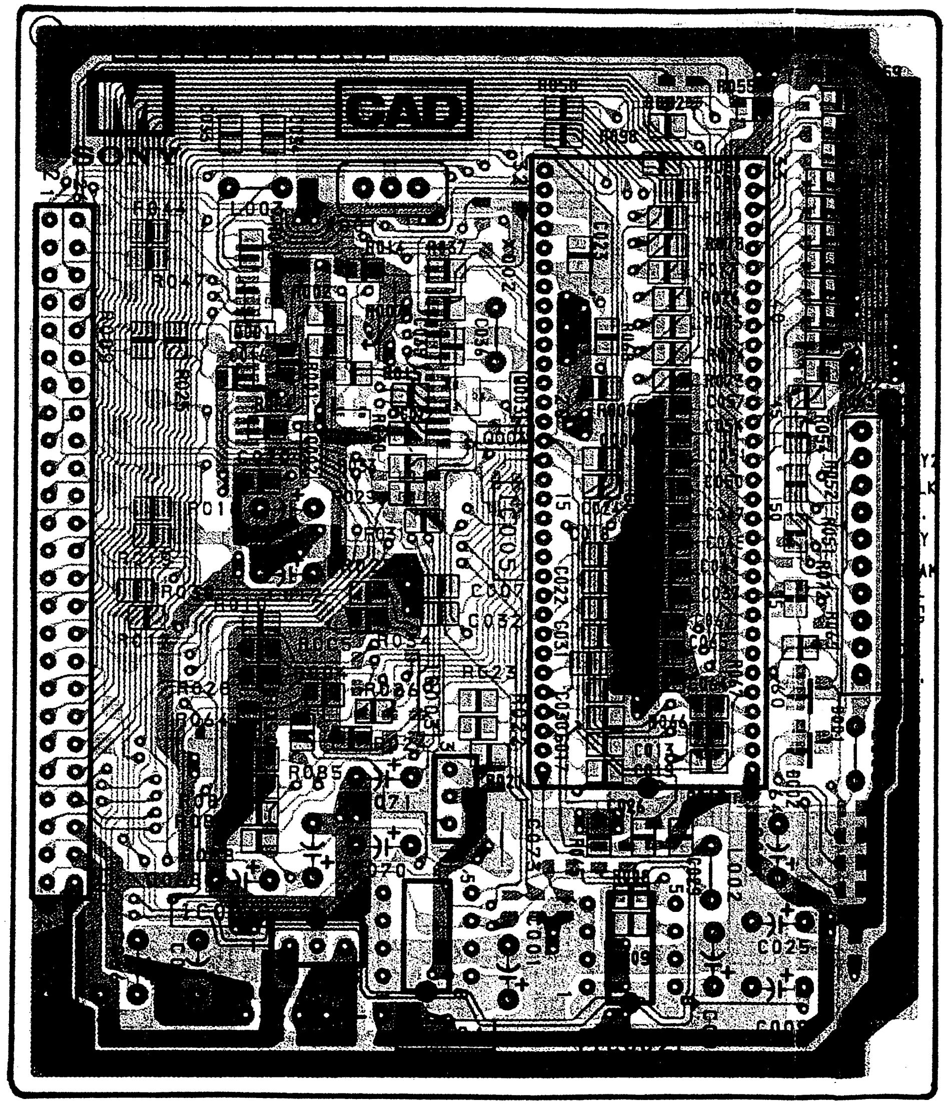


T, OUTPUT]

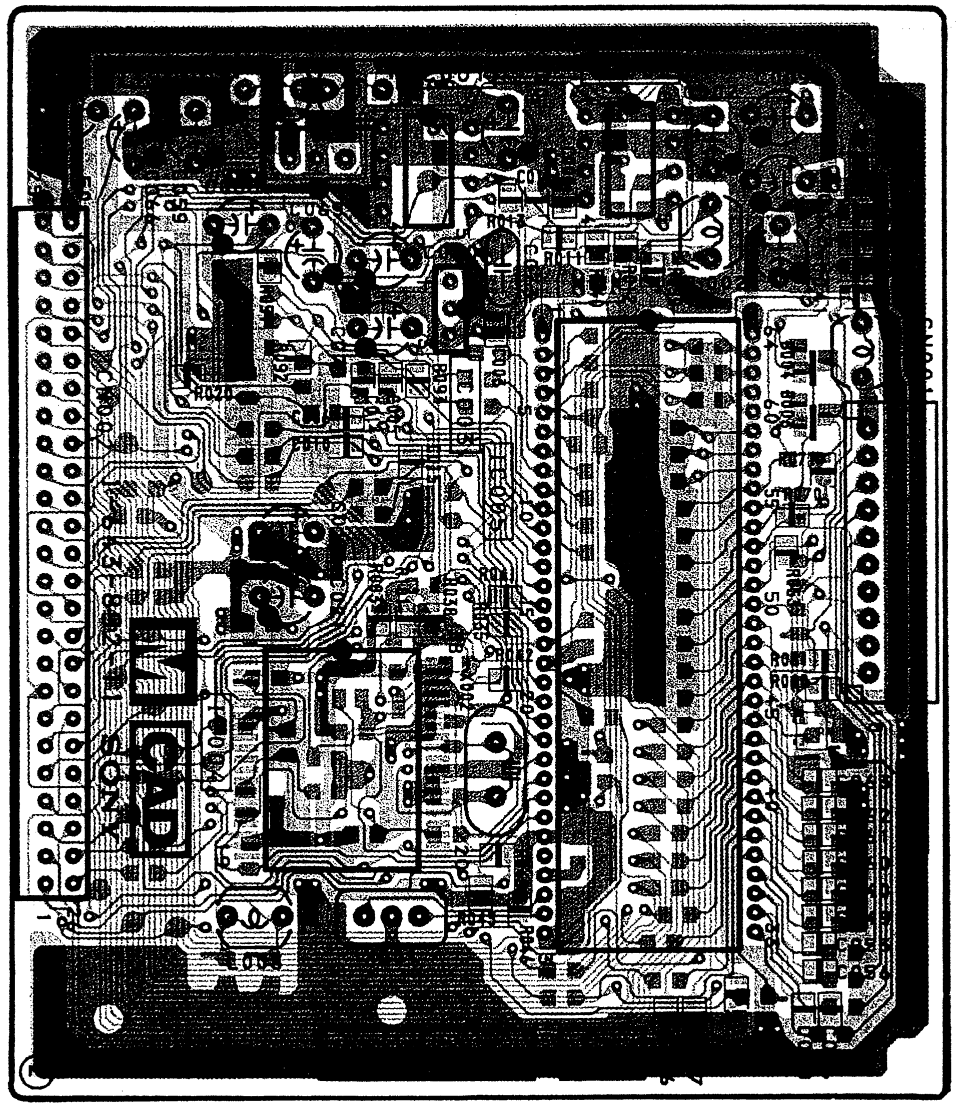


M [MICRO-CONTROLLER]

– M Board (Conductor Side) –



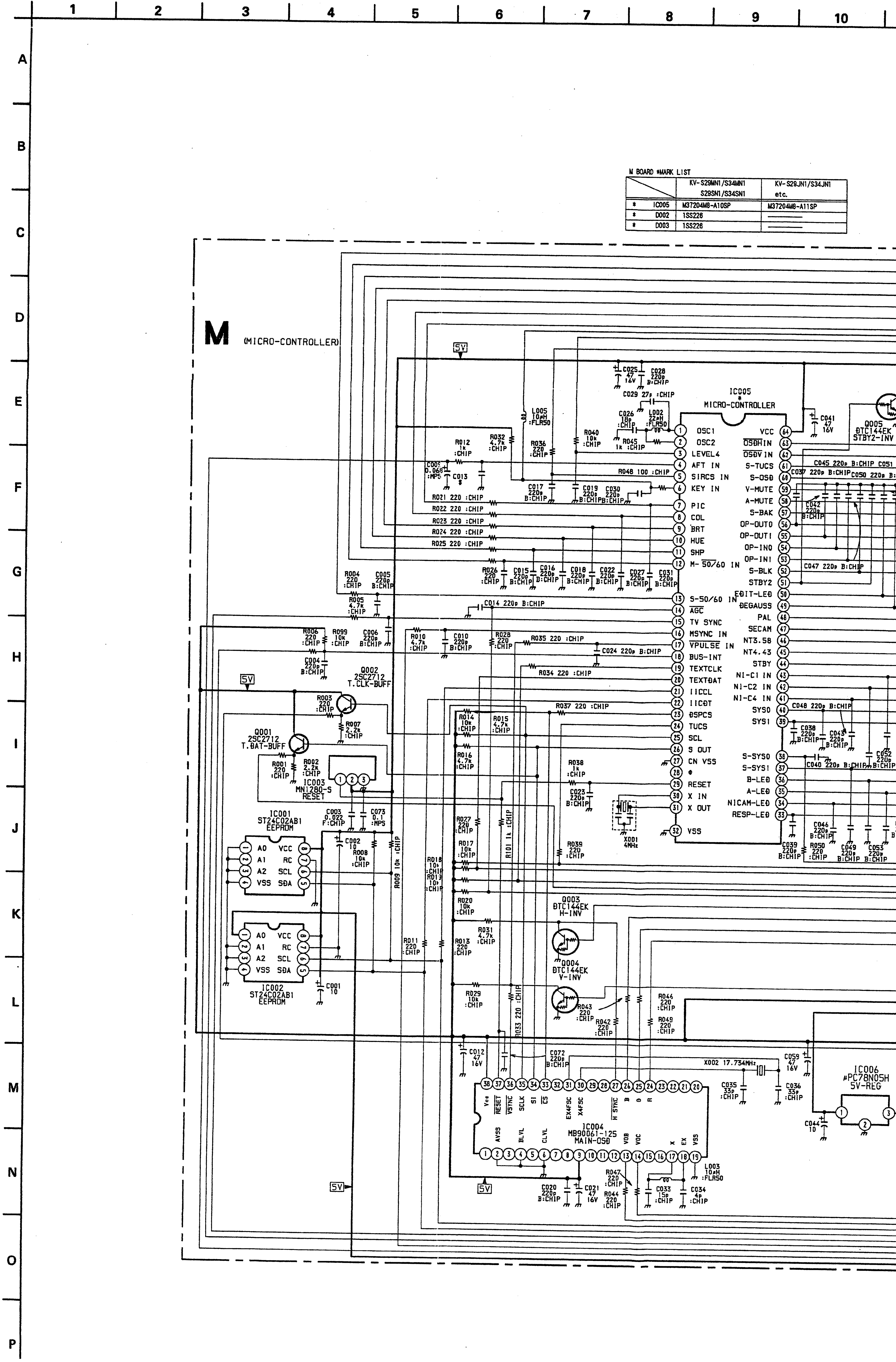
– M Board (Component Side) –

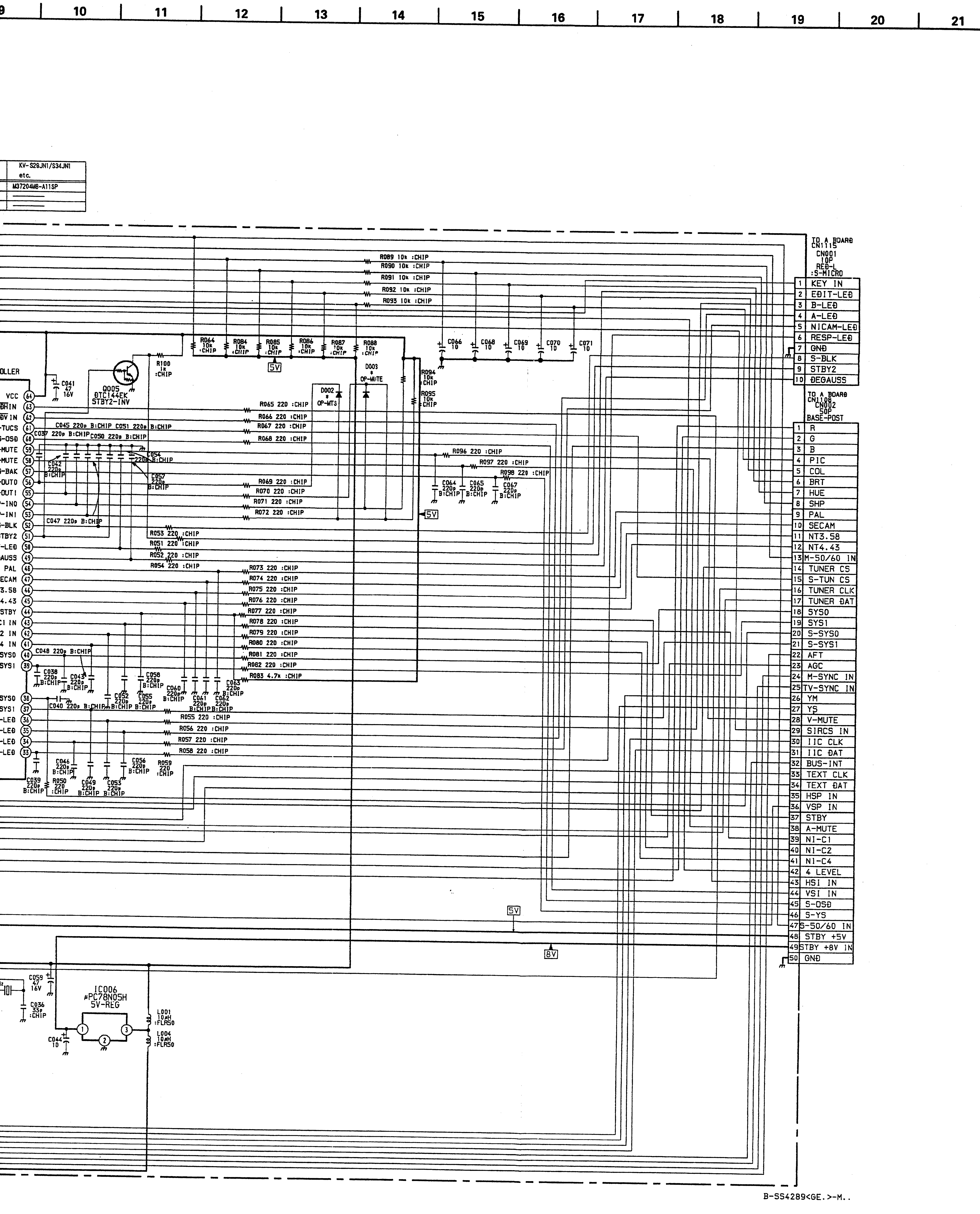


(4) SCHEMATIC DIAGRAMS OF M AND J BOARDS

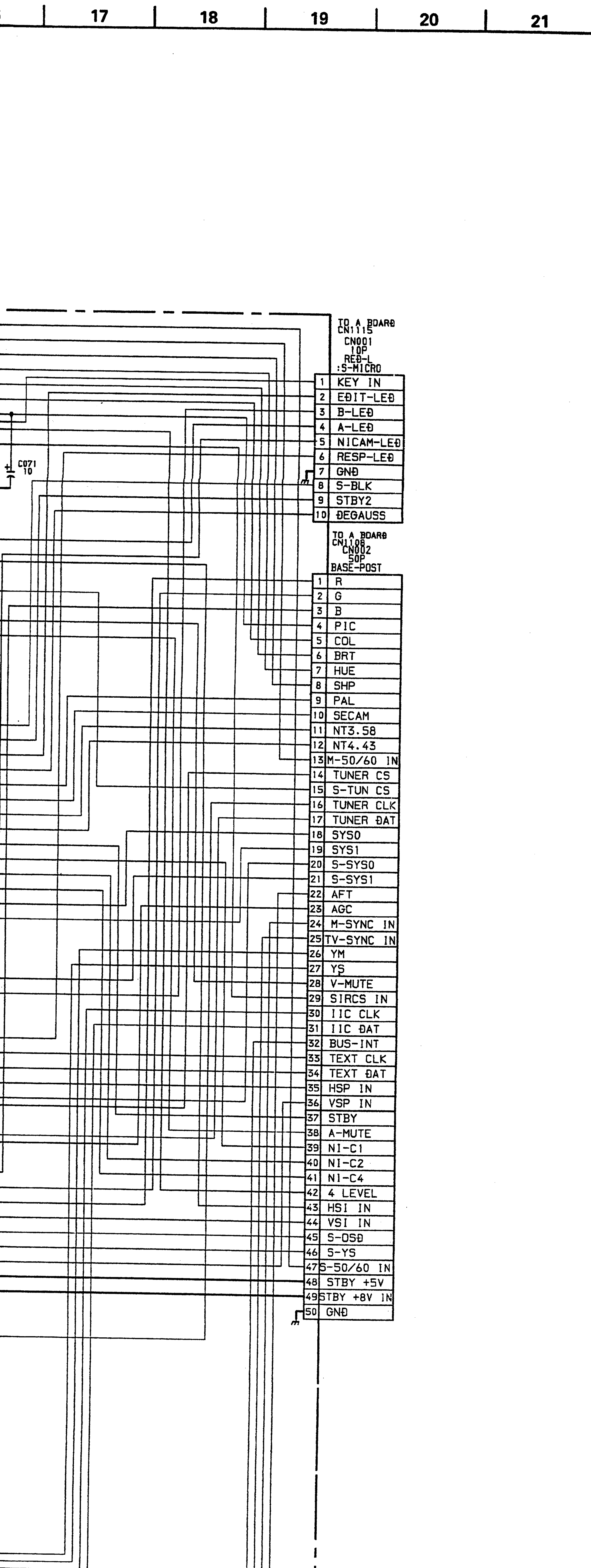
M BOARD *MARK LIST

	KV-S29MN1/S34MN1 S29SN1/S34SN1	KV-S29JN1/S34JN1 etc.
* IC005	M37204M8-A10SP	M37204M8-A11SP
* D002	1SS226	――――
* D003	1SS226	――――

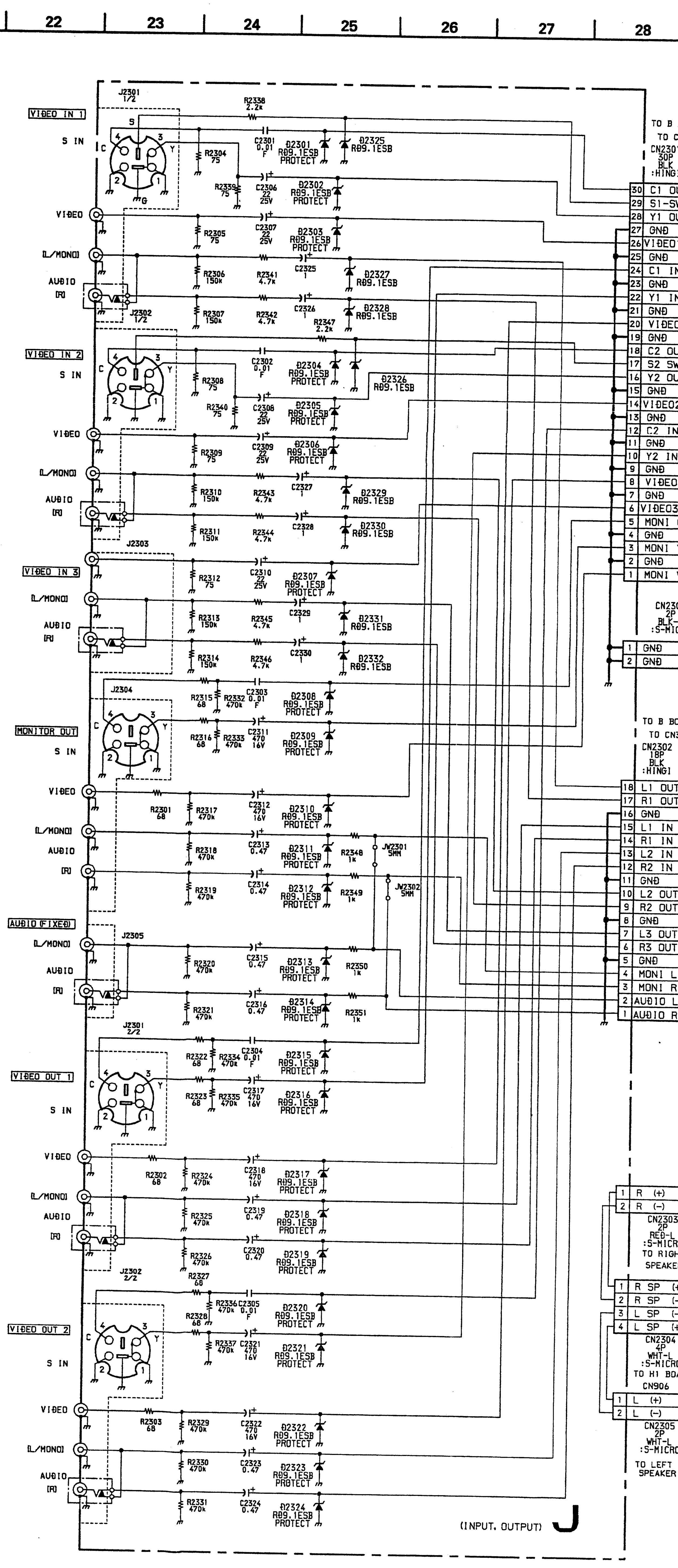

1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
M (MICRO-CONTROLLER)
5V
IC005
*
MICRO-CONTROLLER
1 OSC1
2 OSC2
3 LEVEL4
4 AFT IN
5 SIRCS IN
6 KEY IN
7 PIC
8 COL
9 BRT
10 HUE
11 SHP
12 M-50/60 IN
13 S-50/60 IN
14 AGC
15 TV SYNC
16 MSYNC IN
17 VPULSE IN
18 BUS-INT
19 TEXTCLK
20 TEXTDAT
21 IICCL
22 IICDT
23 DSPCS
24 TUCS
25 SCL
26 S OUT
27 CN VSS
28 Φ
29 RESET
30 X IN
31 X OUT
32 VSS
64 VCC
63 OSDH IN
62 OSDV IN
61 S-TUCS
60 S-OSD
59 V-MUTE
58 A-MUTE
57 S-BAK
56 OP-OUT0
55 OP-OUT1
54 OP-IN0
53 OP-IN1
52 S-BLK
51 STBY2
50 EDIT-LED
49 DEGAUSS
48 PAL
47 SECAM
46 NT3.58
45 NT4.43
44 STBY
43 NI-C1 IN
42 NI-C2 IN
41 NI-C4 IN
40 SYS0
39 SYS1
38 S-SYS0
37 S-SYS1
36 B-LED
35 A-LED
34 NICAM-LED
33 RESP-LED
C025 47 16V
C028 220p B:CHIP
C029 27p :CHIP
C026 18p :CHIP
L002 22μH :FLR50
R045 1k :CHIP
R040 10k :CHIP
R048 100 :CHIP
L005 10μH :FLR50
R012 1k :CHIP
R032 4.7k :CHIP
R036 220 :CHIP
C009 0.068 :MPS
C013 *
C017 220p B:CHIP
C019 220p B:CHIP
C030 220p B:CHIP
R021 220 :CHIP
R022 220 :CHIP
R023 220 :CHIP
R024 220 :CHIP
R025 220 :CHIP
R026 220 :CHIP
C015 220p B:CHIP
C016 220p B:CHIP
C018 220p B:CHIP
C022 220p B:CHIP
C027 220p B:CHIP
C031 220p B:CHIP
R004 220 :CHIP
C005 220p B:CHIP
R005 4.7k :CHIP
C014 220p B:CHIP
R006 220 :CHIP
R099 10k :CHIP
C006 220p B:CHIP
C004 220p B:CHIP
R010 4.7k :CHIP
C010 220p B:CHIP
R028 220 :CHIP
R035 220 :CHIP
C024 220p B:CHIP
R034 220 :CHIP
R037 220 :CHIP
Q002 2SC2712 T.CLK-BUFF
R003 220 :CHIP
R007 2.2k :CHIP
Q001 2SC2712 T.BAT-BUFF
R001 220 :CHIP
R002 2.2k :CHIP
IC003 MN1280-S RESET
IC001 ST24C02AB1 EEPROM
A0 VCC
A1 RC
A2 SCL
VSS SDA
C003 0.022 F:CHIP
C073 0.1 :MPS
C002 10
R008 10k :CHIP
R009 10k :CHIP
IC002 ST24C02AB1 EEPROM
C001 10
R011 220 :CHIP
R014 10k :CHIP
R015 4.7k :CHIP
R016 4.7k :CHIP
R027 220 :CHIP
R017 10k :CHIP
R101 1k :CHIP
R018 10k :CHIP
R019 10k :CHIP
R020 10k :CHIP
R013 220 :CHIP
R031 4.7k :CHIP
R029 10k :CHIP
R033 220 :CHIP
R038 1k :CHIP
C023 220p B:CHIP
R039 220 :CHIP
X001 4MHz
Q003 DTC144EK H-INV
Q004 DTC144EK V-INV
R043 220 :CHIP
R042 220 :CHIP
R046 220 :CHIP
R049 220 :CHIP
C012 47 16V
C072 220p B:CHIP
X002 17.734MHz
C035 33p :CHIP
C036 33p :CHIP
C059 47 16V
IC004 MB90061-125 MAIN-OSD
Vcc
RESET
VSYNC
SCLK
SI
CS
EX4FSC
X4FSC
H SYNC
B
G
R
AVSS
BLVL
CLVL
VOB
VOC
X
EX
VSS
C020 220p B:CHIP
C021 47 16V
R047 220 :CHIP
R044 220 :CHIP
C033 15p :CHIP
C034 4p :CHIP
L003 10μH :FLR50
IC006 μPC78N05H 5V-REG
C044 10
C041 47 16V
Q005 DTC144EK STBY2-INV
C045 220p B:CHIP
C051
C037 220p B:CHIP
C050 220p
C042 220p B:CHIP
C047 220p B:CHIP
C048 220p B:CHIP
C038 220p B:CHIP
C043 220p B:CHIP
C040 220p B:CHIP
C052 220p B:CHIP
C039 220p B:CHIP
R050 220 :CHIP
C046 220p B:CHIP
C049 220p B:CHIP
C053 220p B:CHIP


9
10
11
12
13
14
15
16
17
18
19
20
21
KV-S29JN1/S34JN1
etc.
M37204M8-A11SP
OLLER
Q005
DTC144EK
STBY2-INV
R100 1k :CHIP
C041 47 16V
R064 10k :CHIP
R084 10k :CHIP
R085 10k :CHIP
R086 10k :CHIP
R087 10k :CHIP
R088 10k :CHIP
R089 10k :CHIP
R090 10k :CHIP
R091 10k :CHIP
R092 10k :CHIP
R093 10k :CHIP
R094 10k :CHIP
R095 10k :CHIP
5V
D002 OP-MTS
D003 OP-MUTE
C066 10
C068 10
C069 10
C070 10
C071 10
R065 220 :CHIP
R066 220 :CHIP
R067 220 :CHIP
R068 220 :CHIP
R069 220 :CHIP
R070 220 :CHIP
R071 220 :CHIP
R072 220 :CHIP
R096 220 :CHIP
R097 220 :CHIP
R098 220 :CHIP
C064 220p B:CHIP
C065 220p B:CHIP
C067 220p B:CHIP
C045 220p B:CHIP
C051 220p B:CHIP
C037 220p B:CHIP
C050 220p B:CHIP
C042 220p B:CHIP
C054 220p B:CHIP
C057 220p B:CHIP
C047 220p B:CHIP
R053 220 :CHIP
R051 220 :CHIP
R052 220 :CHIP
R054 220 :CHIP
R073 220 :CHIP
R074 220 :CHIP
R075 220 :CHIP
R076 220 :CHIP
R077 220 :CHIP
R078 220 :CHIP
R079 220 :CHIP
R080 220 :CHIP
R081 220 :CHIP
R082 220 :CHIP
R083 4.7k :CHIP
C048 220p B:CHIP
C038 220p B:CHIP
C043 220p B:CHIP
C058 220p B:CHIP
C060 220p B:CHIP
C061 220p B:CHIP
C062 220p B:CHIP
C063 220p B:CHIP
C040 220p B:CHIP
C052 220p B:CHIP
C055 220p B:CHIP
R055 220 :CHIP
R056 220 :CHIP
R057 220 :CHIP
R058 220 :CHIP
C046 220p B:CHIP
C056 220p B:CHIP
R059 220 :CHIP
C039 220p B:CHIP
R050 220 :CHIP
C049 220p B:CHIP
C053 220p B:CHIP
VCC (64)
(63)
(62)
-TUCS (61)
-OSD (60)
-MUTE (59)
-MUTE (58)
-BAK (57)
-OUT0 (56)
-OUT1 (55)
-IN0 (54)
-IN1 (53)
-BLK (52)
STBY2 (51)
-LED (50)
AUSS (49)
PAL (48)
ECAM (47)
3.58 (46)
4.43 (45)
STBY (44)
1 IN (43)
2 IN (42)
4 IN (41)
SYS0 (40)
SYS1 (39)
SYS0 (38)
SYS1 (37)
-LED (36)
-LED (35)
-LED (34)
-LED (33)
C059 47 16V
C036 33p :CHIP
IC006
μPC78N05H
5V-REG
C044 10
L001 10μH :FLR50
L004 10μH :FLR50
8V
TO A BOARD CN1115
CN001 10P RED-L :S-MICRO
1 KEY IN
2 EDIT-LED
3 B-LED
4 A-LED
5 NICAM-LED
6 RESP-LED
7 GND
8 S-BLK
9 STBY2
10 DEGAUSS
TO A BOARD CN1108
CN002 50P BASE-POST
1 R
2 G
3 B
4 PIC
5 COL
6 BRT
7 HUE
8 SHP
9 PAL
10 SECAM
11 NT3.58
12 NT4.43
13 M-50/60 IN
14 TUNER CS
15 S-TUN CS
16 TUNER CLK
17 TUNER DAT
18 SYS0
19 SYS1
20 S-SYS0
21 S-SYS1
22 AFT
23 AGC
24 M-SYNC IN
25 TV-SYNC IN
26 YM
27 YS
28 V-MUTE
29 SIRCS IN
30 IIC CLK
31 IIC DAT
32 BUS-INT
33 TEXT CLK
34 TEXT DAT
35 HSP IN
36 VSP IN
37 STBY
38 A-MUTE
39 NI-C1
40 NI-C2
41 NI-C4
42 4 LEVEL
43 HSI IN
44 VSI IN
45 S-OSD
46 S-YS
47 S-50/60 IN
48 STBY +5V
49 STBY +8V IN
50 GND

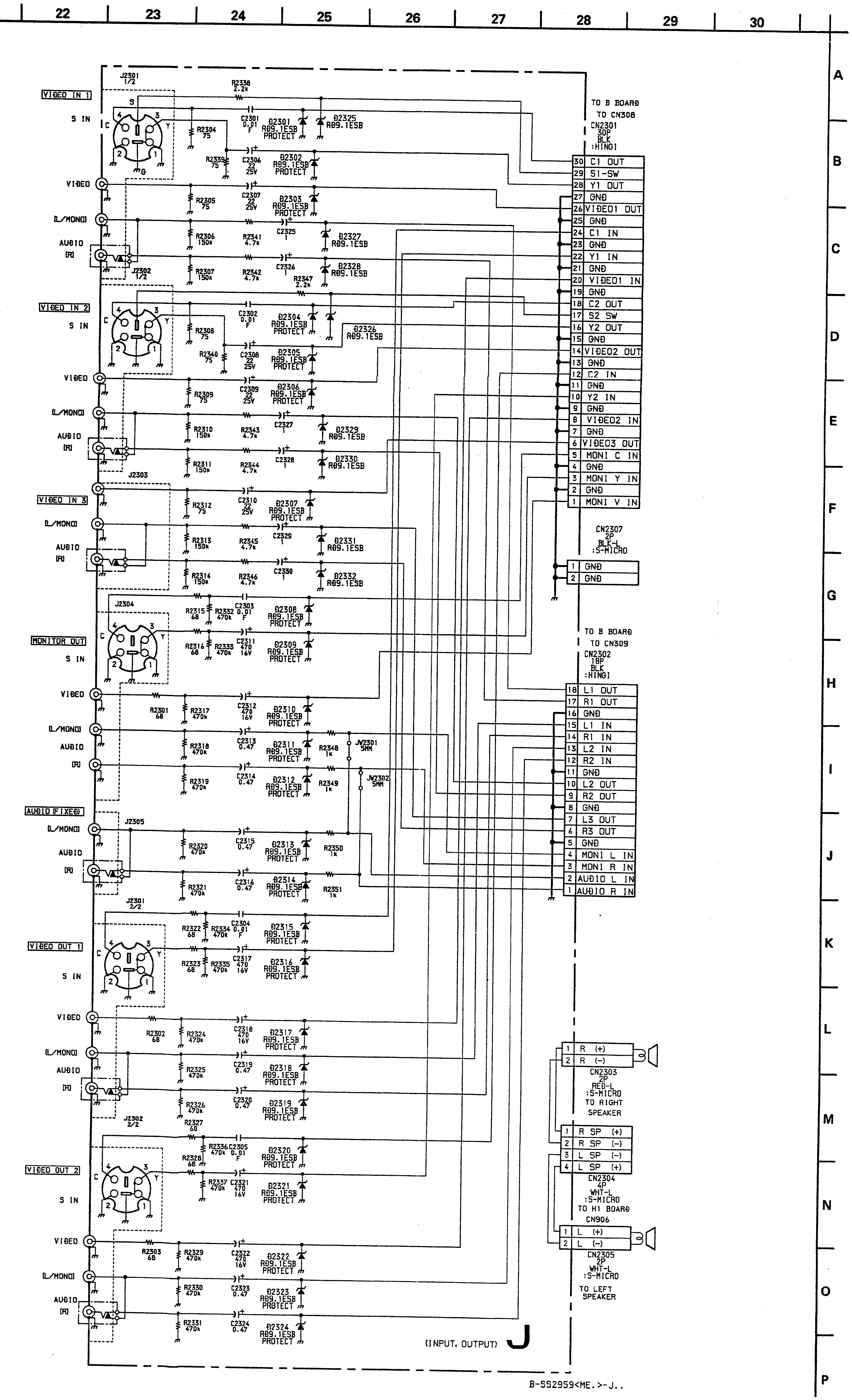
B-SS4289<GE.>-M..


17
18
19
20
21
C071
10
TO A BOARD
CN1115
CN001
10P
RED-L
:S-MICRO
1 KEY IN
2 EDIT-LED
3 B-LED
4 A-LED
5 NICAM-LED
6 RESP-LED
7 GND
8 S-BLK
9 STBY2
10 DEGAUSS
TO A BOARD
CN1106
CN002
50P
BASE-POST
1 R
2 G
3 B
4 PIC
5 COL
6 BRT
7 HUE
8 SHP
9 PAL
10 SECAM
11 NT3.58
12 NT4.43
13 M-50/60 IN
14 TUNER CS
15 S-TUN CS
16 TUNER CLK
17 TUNER DAT
18 SYS0
19 SYS1
20 S-SYS0
21 S-SYS1
22 AFT
23 AGC
24 M-SYNC IN
25 TV-SYNC IN
26 YM
27 YS
28 V-MUTE
29 SIRCS IN
30 IIC CLK
31 IIC DAT
32 BUS-INT
33 TEXT CLK
34 TEXT DAT
35 HSP IN
36 VSP IN
37 STBY
38 A-MUTE
39 NI-C1
40 NI-C2
41 NI-C4
42 4 LEVEL
43 HSI IN
44 VSI IN
45 S-OSD
46 S-YS
47 S-50/60 IN
48 STBY +5V
49 STBY +8V IN
50 GND

B-SS4289<GE.>-M..

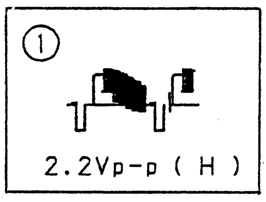

22
23
24
25
26
27
28
J2301
1/2
VIDEO IN 1
S IN
VIDEO
L/MONO
AUDIO
R
J2302
1/2
VIDEO IN 2
J2303
VIDEO IN 3
J2304
MONITOR OUT
AUDIO (FIXED)
J2305
J2301
2/2
VIDEO OUT 1
J2302
2/2
VIDEO OUT 2
R2338
2.2k
C2301
0.01
F
D2301
RD9.1ESB
PROTECT
D2325
RD9.1ESB
R2304
75
R2339
75
C2306
22
25V
D2302
RD9.1ESB
PROTECT
R2305
75
C2307
22
25V
D2303
RD9.1ESB
PROTECT
R2306
150k
R2341
4.7k
C2325
1
D2327
RD9.1ESB
R2307
150k
R2342
4.7k
C2326
1
R2347
2.2k
D2328
RD9.1ESB
C2302
0.01
F
D2304
RD9.1ESB
PROTECT
D2326
RD9.1ESB
R2308
75
R2340
75
C2308
22
25V
D2305
RD9.1ESB
PROTECT
R2309
75
C2309
22
25V
D2306
RD9.1ESB
PROTECT
R2310
150k
R2343
4.7k
C2327
1
D2329
RD9.1ESB
R2311
150k
R2344
4.7k
C2328
1
D2330
RD9.1ESB
R2312
75
C2310
22
25V
D2307
RD9.1ESB
PROTECT
R2313
150k
R2345
4.7k
C2329
1
D2331
RD9.1ESB
R2314
150k
R2346
4.7k
C2330
1
D2332
RD9.1ESB
R2315
68
R2332
470k
C2303
0.01
F
D2308
RD9.1ESB
PROTECT
R2316
68
R2333
470k
C2311
470
16V
D2309
RD9.1ESB
PROTECT
R2301
68
R2317
470k
C2312
470
16V
D2310
RD9.1ESB
PROTECT
R2318
470k
C2313
0.47
D2311
RD9.1ESB
PROTECT
R2348
1k
JW2301
5MM
R2319
470k
C2314
0.47
D2312
RD9.1ESB
PROTECT
R2349
1k
JW2302
5MM
R2320
470k
C2315
0.47
D2313
RD9.1ESB
PROTECT
R2350
1k
R2321
470k
C2316
0.47
D2314
RD9.1ESB
PROTECT
R2351
1k
R2322
68
R2334
470k
C2304
0.01
F
D2315
RD9.1ESB
PROTECT
R2323
68
R2335
470k
C2317
470
16V
D2316
RD9.1ESB
PROTECT
R2302
68
R2324
470k
C2318
470
16V
D2317
RD9.1ESB
PROTECT
R2325
470k
C2319
0.47
D2318
RD9.1ESB
PROTECT
R2326
470k
C2320
0.47
D2319
RD9.1ESB
PROTECT
R2327
68
R2336
470k
C2305
0.01
F
D2320
RD9.1ESB
PROTECT
R2328
68
R2337
470k
C2321
470
16V
D2321
RD9.1ESB
PROTECT
R2303
68
R2329
470k
C2322
470
16V
D2322
RD9.1ESB
PROTECT
R2330
470k
C2323
0.47
D2323
RD9.1ESB
PROTECT
R2331
470k
C2324
0.47
D2324
RD9.1ESB
PROTECT
TO B
TO C
CN230
30P
BLK
:HING
30 C1 OU
29 S1-SW
28 Y1 OU
27 GND
26 VIDEO
25 GND
24 C1 IN
23 GND
22 Y1 IN
21 GND
20 VIDEO
19 GND
18 C2 OU
17 S2 SW
16 Y2 OU
15 GND
14 VIDEO2
13 GND
12 C2 IN
11 GND
10 Y2 IN
9 GND
8 VIDEO
7 GND
6 VIDEO3
5 MONI
4 GND
3 MONI
2 GND
1 MONI
CN230
2P
BLK-
:S-MIC
1 GND
2 GND
TO B BO
TO CN
CN2302
18P
BLK
:HING
18 L1 OUT
17 R1 OUT
16 GND
15 L1 IN
14 R1 IN
13 L2 IN
12 R2 IN
11 GND
10 L2 OUT
9 R2 OUT
8 GND
7 L3 OUT
6 R3 OUT
5 GND
4 MONI L
3 MONI R
2 AUDIO L
1 AUDIO R
1 R (+)
2 R (−)
CN2303
2P
RED-L
:S-MICR
TO RIGH
SPEAKE
1 R SP (+
2 R SP (−
3 L SP (−
4 L SP (+
CN2304
4P
WHT-L
:S-MICR
TO H1 BO
CN906
1 L (+)
2 L (−)
CN2305
2P
WHT-L
:S-MICR
TO LEFT
SPEAKER
(INPUT, OUTPUT)
J

B-SS2959<ME.>-J.

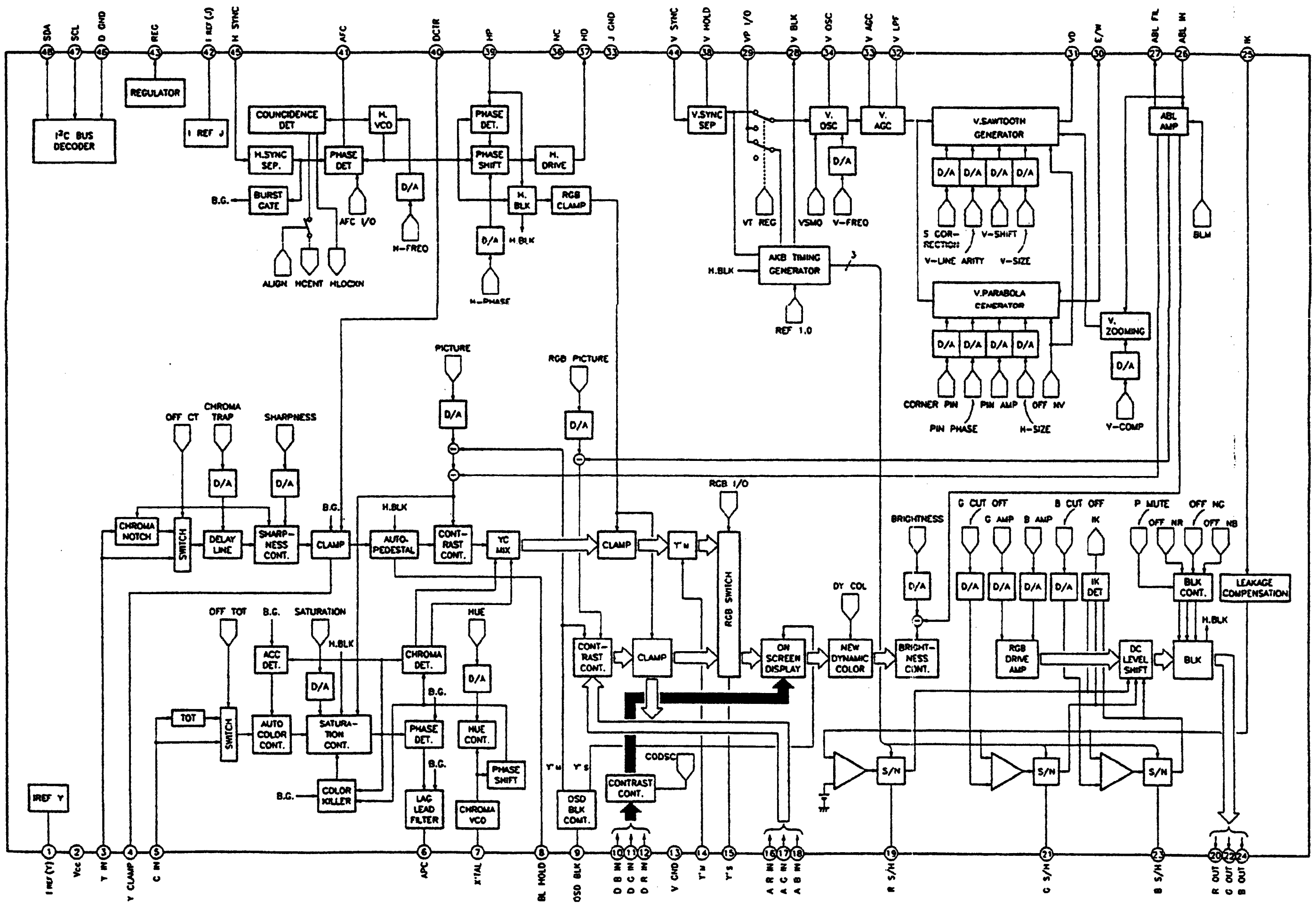

22
23
24
25
26
27
28
29
30
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
J2301 1/2
VIDEO IN 1
S IN
R2338 2.2k
C2301 0.01 F
D2301 RD9.1ESB PROTECT
D2325 RD9.1ESB
R2304 75
R2339 75
C2306 22 25V
D2302 RD9.1ESB PROTECT
VIDEO
R2305 75
C2307 22 25V
D2303 RD9.1ESB PROTECT
L/MONO
AUDIO
R
R2306 150k
R2341 4.7k
C2325 1
D2327 RD9.1ESB
R2307 150k
R2342 4.7k
C2326 1
D2328 RD9.1ESB
R2347 2.2k
J2302 1/2
VIDEO IN 2
C2302 0.01 F
D2304 RD9.1ESB PROTECT
D2326 RD9.1ESB
R2308 75
R2340 75
C2308 22 25V
D2305 RD9.1ESB PROTECT
C2309 22 25V
R2309 75
D2306 RD9.1ESB PROTECT
R2310 150k
R2343 4.7k
C2327 1
D2329 RD9.1ESB
R2311 150k
R2344 4.7k
C2328 1
D2330 RD9.1ESB
J2303
VIDEO IN 3
R2312 75
C2310 22 25V
D2307 RD9.1ESB PROTECT
R2313 150k
R2345 4.7k
C2329 1
D2331 RD9.1ESB
R2314 150k
R2346 4.7k
C2330 1
D2332 RD9.1ESB
J2304
MONITOR OUT
R2315 68
R2332 470k
C2303 0.01 F
D2308 RD9.1ESB PROTECT
R2316 68
R2333 470k
C2311 470 16V
D2309 RD9.1ESB PROTECT
R2301 68
R2317 470k
C2312 470 16V
D2310 RD9.1ESB PROTECT
R2318 470k
C2313 0.47
D2311 RD9.1ESB PROTECT
R2348 1k
JW2301 5MM
R2319 470k
C2314 0.47
D2312 RD9.1ESB PROTECT
R2349 1k
JW2302 5MM
AUDIO (FIXED)
J2305
R2320 470k
C2315 0.47
D2313 RD9.1ESB PROTECT
R2350 1k
R2321 470k
C2316 0.47
D2314 RD9.1ESB PROTECT
R2351 1k
J2301 2/2
VIDEO OUT 1
R2322 68
R2334 470k
C2304 0.01 F
D2315 RD9.1ESB PROTECT
R2323 68
R2335 470k
C2317 470 16V
D2316 RD9.1ESB PROTECT
R2302 68
R2324 470k
C2318 470 16V
D2317 RD9.1ESB PROTECT
R2325 470k
C2319 0.47
D2318 RD9.1ESB PROTECT
R2326 470k
C2320 0.47
D2319 RD9.1ESB PROTECT
J2302 2/2
R2327 68
VIDEO OUT 2
R2336 470k
C2305 0.01 F
D2320 RD9.1ESB PROTECT
R2328 68
R2337 470k
C2321 470 16V
D2321 RD9.1ESB PROTECT
R2303 68
R2329 470k
C2322 470 16V
D2322 RD9.1ESB PROTECT
R2330 470k
C2323 0.47
D2323 RD9.1ESB PROTECT
R2331 470k
C2324 0.47
D2324 RD9.1ESB PROTECT
TO B BOARD TO CN308
CN2301 30P BLK :HING
30 C1 OUT
29 S1-SW
28 Y1 OUT
27 GND
26 VIDEO1 OUT
25 GND
24 C1 IN
23 GND
22 Y1 IN
21 GND
20 VIDEO1 IN
19 GND
18 C2 OUT
17 S2 SW
16 Y2 OUT
15 GND
14 VIDEO2 OUT
13 GND
12 C2 IN
11 GND
10 Y2 IN
9 GND
8 VIDEO2 IN
7 GND
6 VIDEO3 OUT
5 MONI C IN
4 GND
3 MONI Y IN
2 GND
1 MONI V IN
CN2307 2P BLK-L :S-MICRO
1 GND
2 GND
TO B BOARD TO CN309
CN2302 18P BLK :HING
18 L1 OUT
17 R1 OUT
16 GND
15 L1 IN
14 R1 IN
13 L2 IN
12 R2 IN
11 GND
10 L2 OUT
9 R2 OUT
8 GND
7 L3 OUT
6 R3 OUT
5 GND
4 MONI L IN
3 MONI R IN
2 AUDIO L IN
1 AUDIO R IN
1 R (+)
2 R (-)
CN2303 2P RED-L :S-MICRO TO RIGHT SPEAKER
1 R SP (+)
2 R SP (-)
3 L SP (-)
4 L SP (+)
CN2304 4P WHT-L :S-MICRO TO H1 BOARD CN906
1 L (+)
2 L (-)
CN2305 2P WHT-L :S-MICRO TO LEFT SPEAKER
(INPUT, OUTPUT)
J

(5) SCHEMATIC DIAGRAM OF A BOARD

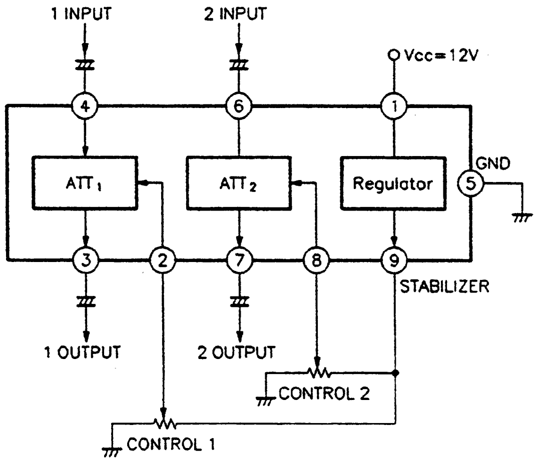
A BOARD WAVEFORMS



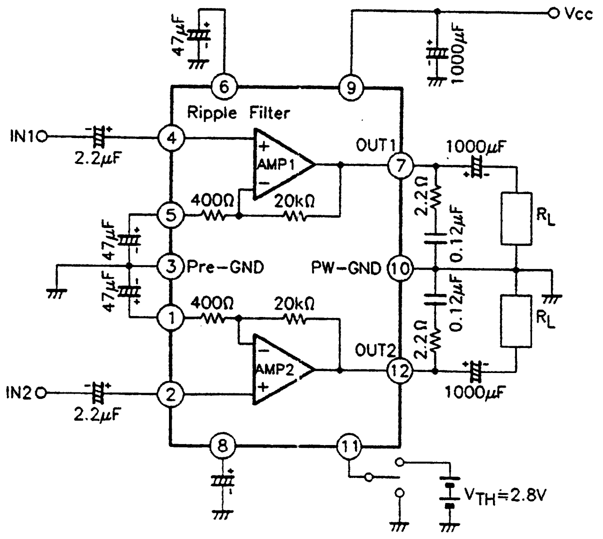
A Board IC3501 CXA1464AS


I²C BUS DECODER
REGULATOR
I REF
COINCIDENCE DET
H.VCO
H.SYNC SEP.
PHASE DET
BURST GATE
PHASE DET.
PHASE SHIFT
H. DRIVE
H. BLK
RGB CLAMP
V.SYNC SEP
V. OSC
V. AGC
V.SAWTOOTH GENERATOR
AKB TIMING GENERATOR
V.PARABOLA GENERATOR
V. ZOOMING
ABL AMP
CHROMA NOTCH
SWITCH
DELAY LINE
SHARPNESS CONT.
CLAMP
AUTO PEDESTAL
CONTRAST CONT.
YC MIX
RGB SWITCH
ON SCREEN DISPLAY
NEW DYNAMIC COLOR
BRIGHTNESS CONT.
RGB DRIVE AMP
DC LEVEL SHIFT
BLK CONT.
LEAKAGE COMPENSATION
ACC DET.
AUTO COLOR CONT.
SATURATION CONT.
CHROMA DET.
PHASE DET.
HUE CONT.
PHASE SHIFT
COLOR KILLER
LAG LEAD FILTER
CHROMA VCO
OSD BLK CONT.
CONTRAST CONT.
IREF Y
TOT
S/H
IK DET

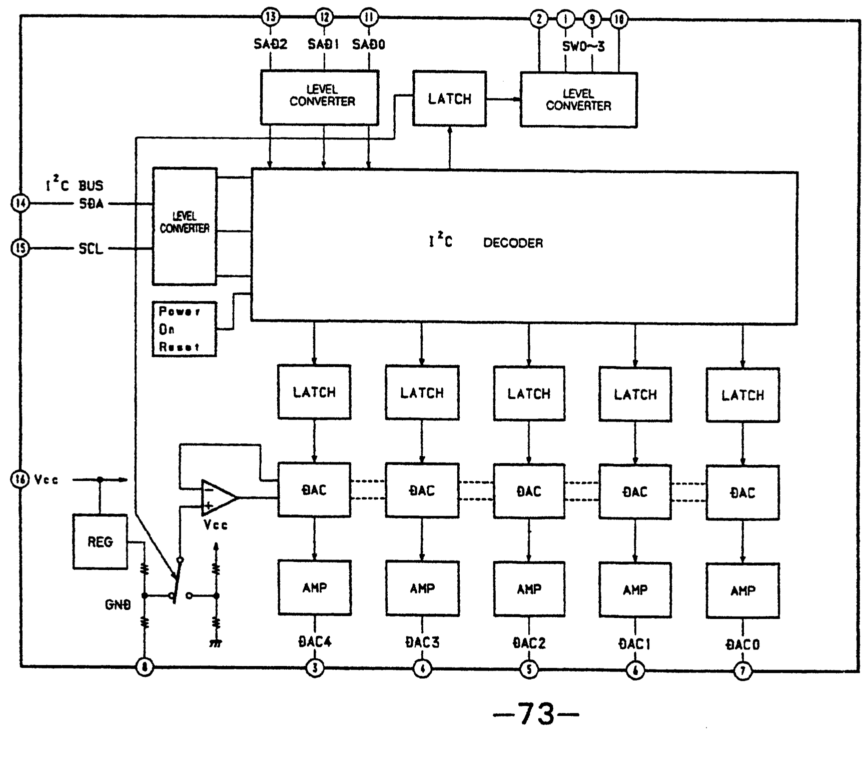
A Board IC1202 μPC1406HA

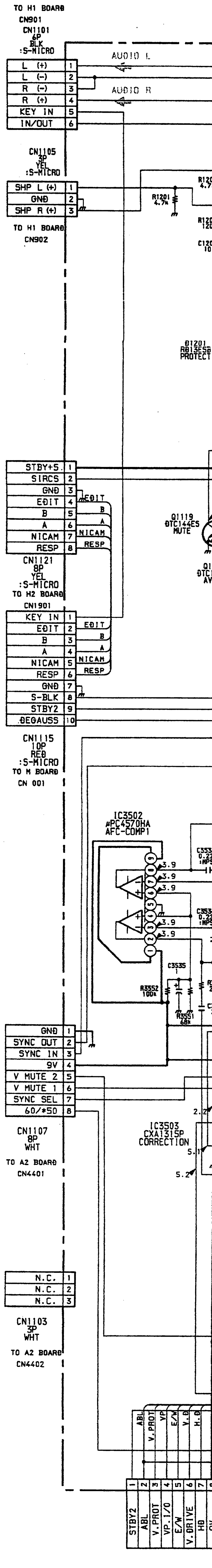

1 INPUT
2 INPUT
Vcc=12V
ATT₁
ATT₂
Regulator
GND
STABILIZER
1 OUTPUT
2 OUTPUT
CONTROL 2
CONTROL 1

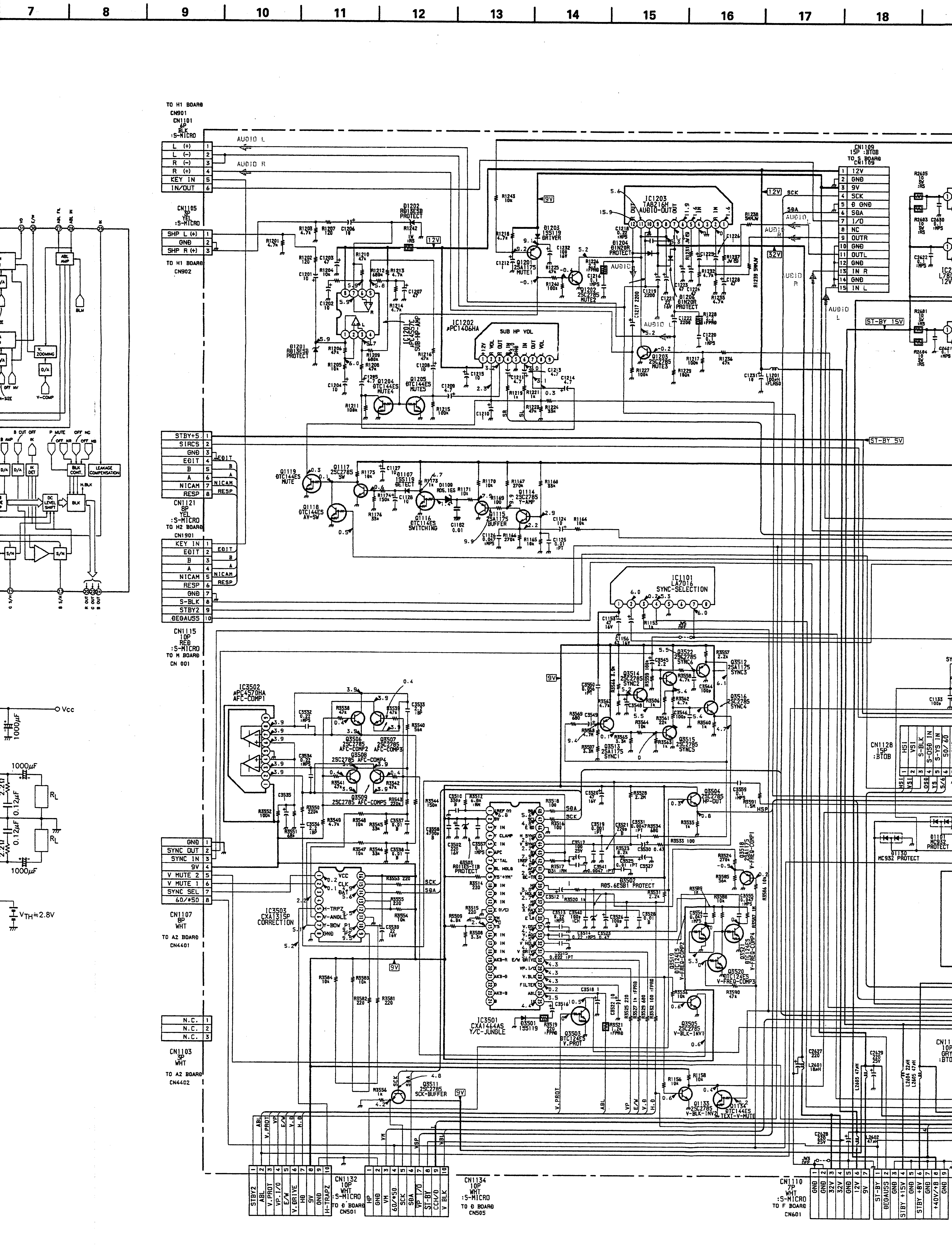
A Board IC1203 TA8216H


47μF
1000μF
Vcc
Ripple Filter
IN1
2.2μF
AMP1
OUT1
1000μF
400Ω
20kΩ
2.2Ω
0.12μF
RL
47μF
Pre-GND
PW-GND
AMP2
OUT2
IN2
VTH≒2.8V

A Board IC3503 CXA1315P


SAD2
SAD1
SAD0
SW0~3
LEVEL CONVERTER
LATCH
LEVEL CONVERTER
I²C BUS
SDA
SCL
LEVEL CONVERTER
I²C DECODER
Power On Reset
LATCH
DAC
AMP
Vcc
REG
GND
DAC4
DAC3
DAC2
DAC1
DAC0


TO H1 BOARD CN901
CN1101 6P BLK :S-MICRO
L (+)
L (-)
R (-)
R (+)
KEY IN
IN/OUT
AUDIO L
AUDIO R
CN1105 3P YEL :S-MICRO
SHP L (+)
GND
SHP R (+)
TO H1 BOARD CN902
STBY+5.
SIRCS
GND
EDIT
B
A
NICAM
RESP
CN1121 8P YEL :S-MICRO
TO H2 BOARD CN1901
Q1119 DTC144ES MUTE
KEY IN
EDIT
B
A
NICAM
RESP
GND
S-BLK
STBY2
DEGAUSS
CN1115 10P RED :S-MICRO
TO M BOARD CN 001
IC3502 μPC4570HA AFC-COMP1
GND
SYNC OUT
SYNC IN
9V
V MUTE 2
V MUTE 1
SYNC SEL
60/*50
CN1107 8P WHT
TO A2 BOARD CN4401
IC3503 CXA1315P CORRECTION
N.C.
N.C.
N.C.
CN1103 3P WHT
TO A2 BOARD CN4402
ABL
V.PROT
VP
E/W
STBY2
ABL
V.PROT
VP.I/O
E/W
V.DRIVE
HD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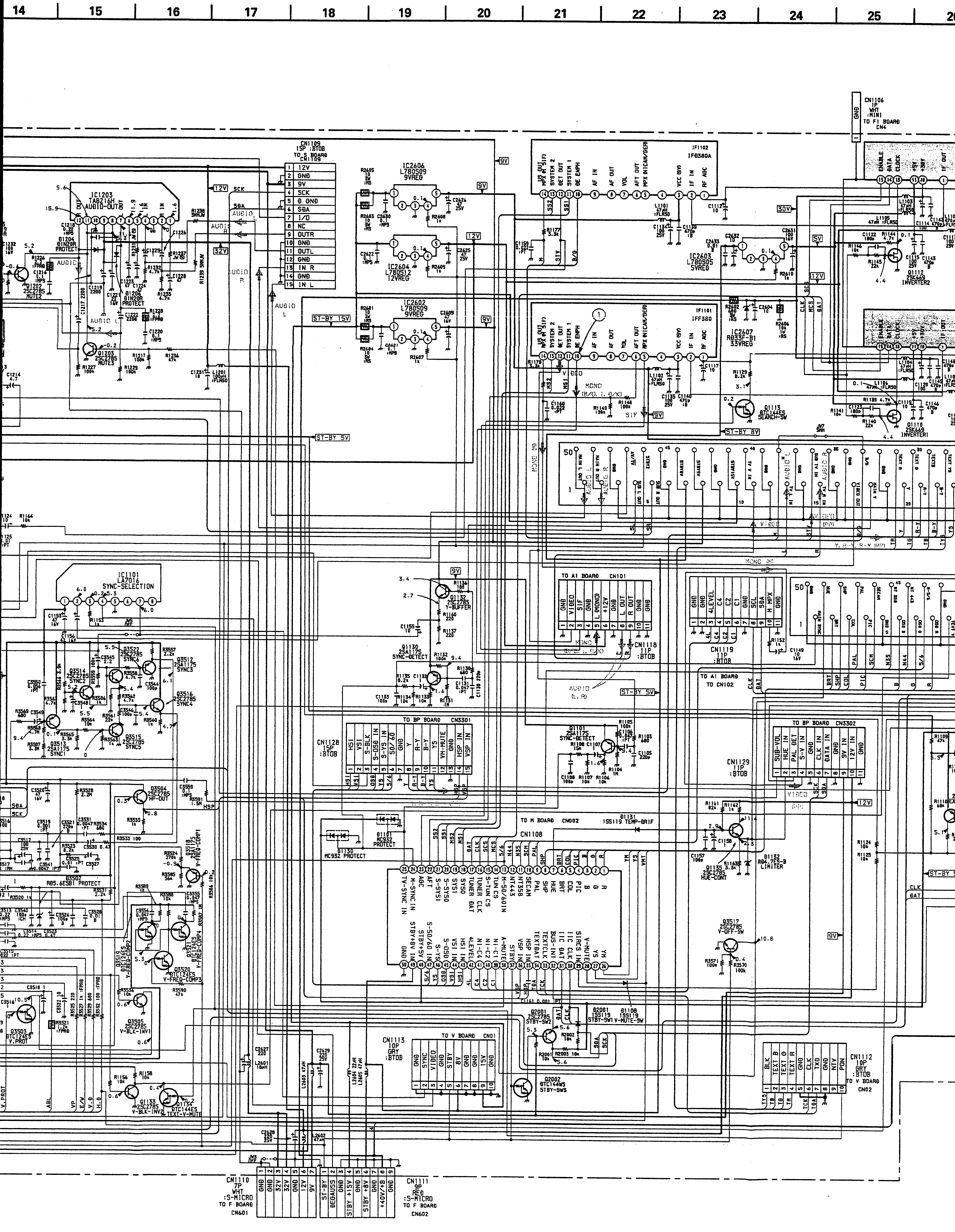
TO H1 BOARD CN901
CN1101 6P BLK :S-MICRO
L (+)
L (-)
R (-)
R (+)
KEY IN
IN/OUT
AUDIO L
AUDIO R
CN1105 3P YEL :S-MICRO
SHP L (+)
GND
SHP R (+)
TO H1 BOARD CN902
D1202 RD13ESB PROTECT
D1201 RD13ESB PROTECT
IC1201 µPC4570C SUB-HP-AMP
IC1202 µPC1406HA
SUB HP VOL
Q1201 2SA1175 MUTE1
Q1202 2SC2785 MUTE2
Q1204 DTC144ES MUTE4
Q1205 DTC144ES MUTE5
D1203 1SS119 DRIVER
IC1203 TA8216H AUDIO-OUT
D1204 01N20R PROTECT
D1206 01N20R PROTECT
Q1203 2SC2785 MUTE3
L1201 100µH
CN1109 15P :BTOB TO S BOARD CN1109
12V
GND
9V
SCK
D GND
SDA
I/O
NC
OUTR
GND
OUTL
GND
IN R
GND
IN L
ST-BY 15V
ST-BY 5V
STBY+5
SIRCS
GND
EDIT
B
A
NICAM
RESP
CN1121 8P YEL :S-MICRO TO H2 BOARD CN1901
Q1119 DTC144ES MUTE
Q1117 2SC2785 SW
Q1118 DTC144ES AV-SW
D1107 1SS119 DETECT
D1108 RD5.1ES
Q1116 DTC144ES SWITCHING
Q1115 2SA1175 BUFFER
Q1114 2SC2785 Y-AMP
KEY IN
EDIT
B
A
NICAM
RESP
GND
S-BLK
STBY2
DEGAUSS
CN1115 10P RED :S-MICRO TO M BOARD CN 001
IC1101 LA7016 SYNC-SELECTION
Q3522 2SC2785 SYNC6
Q3512 2SA1175 SYNC3
Q3514 2SC2785 SYNC2
Q3516 2SC2785 SYNC4
Q3513 2SA1175 SYNC1
Q3515 2SC2785 SYNC5
IC3502 µPC4570HA AFC-COMP1
Q3506 2SC2785 AFC-COMP2
Q3507 2SC2785 AFC-COMP3
Q3508 2SC2785 AFC-COMP4
Q3509 2SC2785 AFC-COMP5
GND
SYNC OUT
SYNC IN
9V
V MUTE 2
V MUTE 1
SYNC SEL
60/*50
CN1107 8P WHT TO A2 BOARD CN4401
IC3503 CXA1315P CORRECTION
IC3501 CXA1464AS Y/C-JUNGLE
D3501 1SS119
D3503 RD1ES-T1B PROTECT
D3507 RD5.6ESB1 PROTECT
Q3503 DTC124ES V.PROT
Q3504 2SC2785 HP-OUT
Q3518 2SA1175 V-FREQ-COMP1
Q3519 DTC124ES V-FREQ-COMP2
Q3521 DTC124ES V-FREQ-COMP4
Q3520 DTC124ES V-FREQ-COMP3
Q3505 2SC2785 V-BLK-INV1
Q3511 2SC2785 SCK-BUFFER
Q1133 2SC2785 V-BLK-INV2
Q1134 DTC144ES TEXT-V-MUTE
N.C.
N.C.
N.C.
CN1103 3P WHT TO A2 BOARD CN4402
CN1128 15P :BTOB
D1101 MC932 PROTECT
D1130 MC932 PROTECT
STBY2
ABL
V.PROT
VP.I/O
E/W
V.DRIVE
HD
9V
GND
H-TRAPZ
CN1132 10P WHT :S-MICRO TO D BOARD CN501
HP
GND
VM
60/*50
SCK
SDA
VP I/O
ST-BY
CCH/D
V BLK
CN1134 10P WHT :S-MICRO TO D BOARD CN505
CN1110 7P WHT :S-MICRO TO F BOARD CN601
GND
GND
32V
GND
12V
9V
DEGAUSS
STBY +15V
GND
STBY +8V
GND
+40V/+B
IC2 L78 12V
Vcc
1000µF
R_L
0.12µF
2.2Ω
V_{TH}≈2.8V



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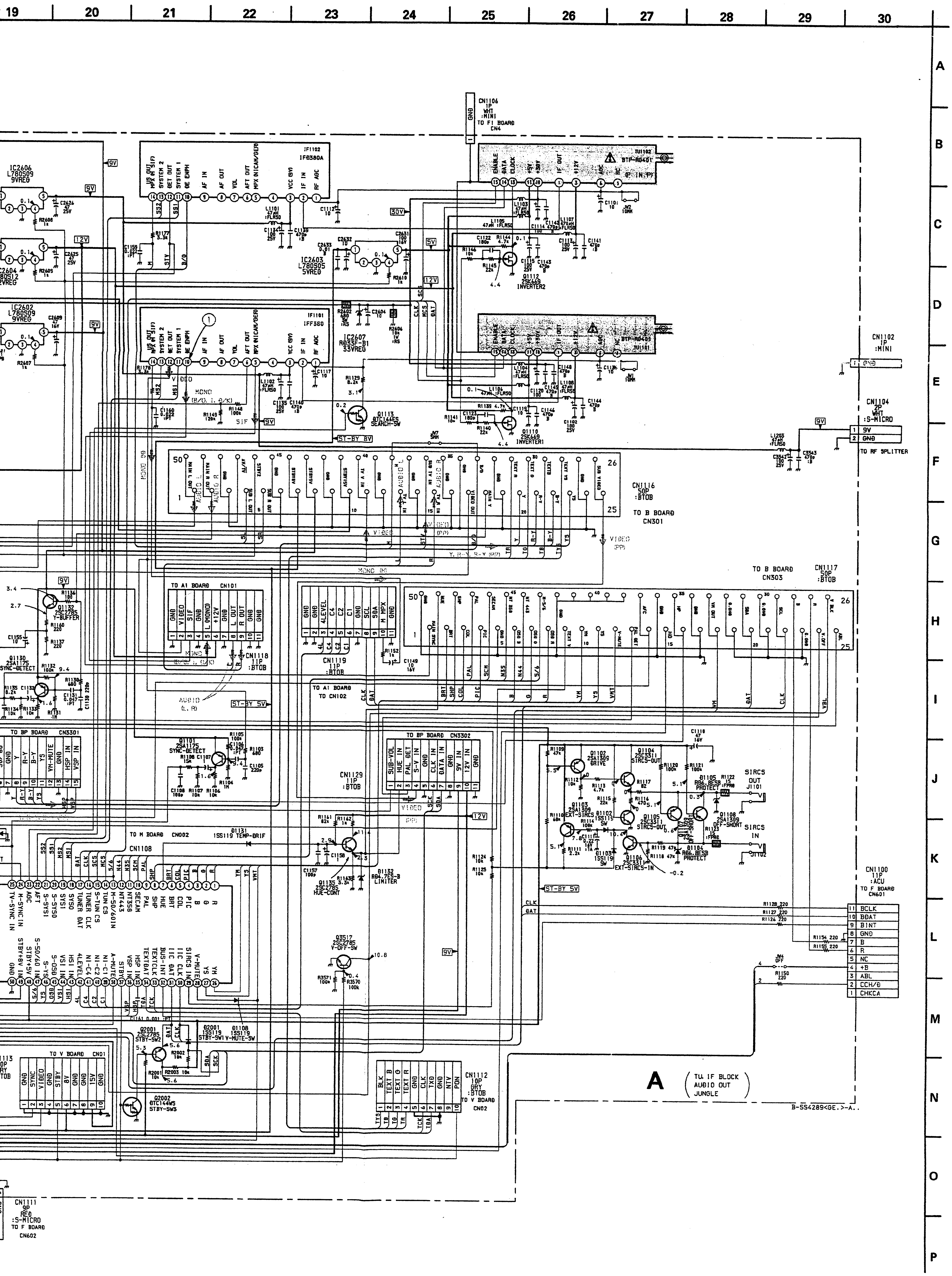
IC1203 TA8216H AUDIO-OUTPUT
D1204 D1N20R PROTECT
D1206 D1N20R PROTECT
Q1202 2SC2785 MUTE2
Q1203 2SC2785 MUTE3
CN1109 15P :BTOB TO S BOARD CN1109
12V
GND
9V
SCK
B GND
SDA
I/O
NC
OUTR
GND
OUTL
GND
IN R
GND
IN L
IC2606 L780S09 9VREG
IC2604 L780S12 12VREG
IC2602 L780S09 9VREG
IC2603 L780S05 5VREG
IC2607 RD33F-B1 33VREG
IF1102 IF0380A
IF1101 IFF360
Q1113 DTC144ES SEARCH-SW
Q1112 2SK669 INVERTER2
Q1110 2SK669 INVERTER1
CN1106 1P WHT :MINI TO F1 BOARD CN4
ST-BY 15V
ST-BY 5V
ST-BY 8V
MONO (B/G, I, D/K)
AUDIO L
AUDIO R
IC1101 LA7016 SYNC-SELECTION
Q1132 2SC2785 Y-BUFFER
Q1130 2SA1175 SYNC-DETECT
Q1101 2SA1175 SYNC-DETECT
Q3522 2SC2785 SYNC6
Q3514 2SC2785 SYNC2
Q3512 2SA1175 SYNC3
Q3516 2SC2785 SYNC4
Q3513 2SA1175 SYNC1
Q3515 2SC2785 SYNC5
Q3504 2SC2785 HP-OUT
Q3518 2SC2785 V-FREQ-COMP1
Q3519 DTC124ES V-FREQ-COMP2
Q3521 DTC124ES V-FREQ-COMP4
Q3520 DTC124ES V-FREQ-COMP3
Q3505 2SC2785 V-BLK-INV1
Q3503 DTC124ES V.PROT
Q1133 2SC2785 V-BLK-INV2
Q1134 DTC144ES TEXT-V-MUTE
D3502 RD5.6ESB1 PROTECT
TO A1 BOARD CN101
CN1118 11P :BTOB
CN1119 11P :BTOB
TO A1 BOARD TO CN102
TO BP BOARD CN3301
CN1128 15P :BTOB
TO BP BOARD CN3302
CN1129 11P :BTOB
D1101 MC932 PROTECT
D1130 MC932 PROTECT
TO M BOARD CN002
CN1108
D1131 1SS119 TEMP-DRIF
D1132 RD4.7ES-B LIMITER
Q1135 2SC2785 HUE-CONT
Q3517 2SC2785 V-OFF-SW
Q2001 2SC2785 STBY-SW2
D2001 1SS119 STBY-SW1
D1108 1SS119 V-MUTE-SW
Q2002 DTC144WS STBY-SW3
CN1113 10P GRY :BTOB
TO V BOARD CN01
CN1112 10P GRY :BTOB TO V BOARD CN02
CN1110 7P WHT :S-MICRO TO F BOARD CN601
CN1111 9P RED :S-MICRO TO F BOARD CN602

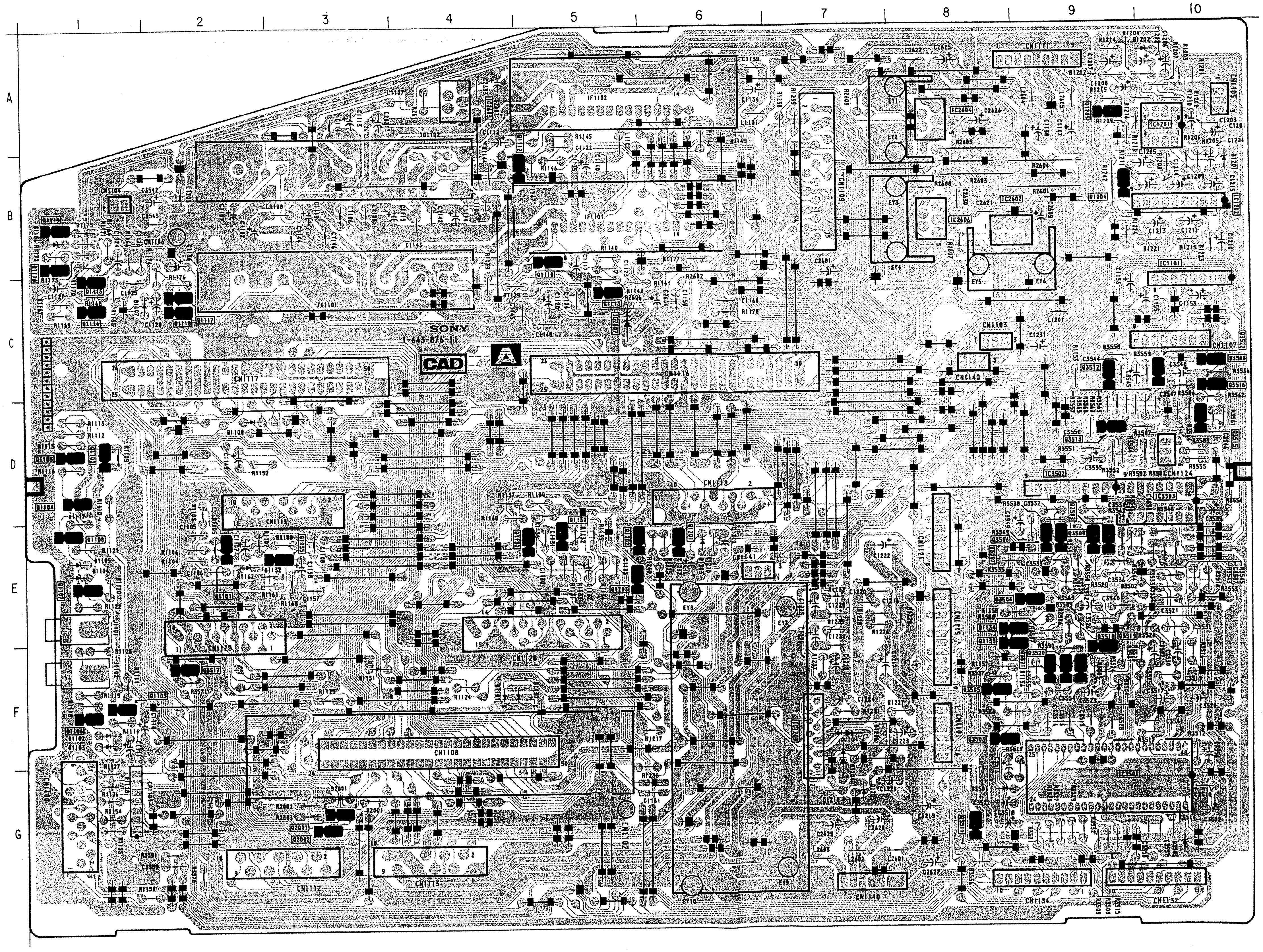

A
TU, IF BLOCK
AUDIO OUT
JUNGLE
B-SS4289<GE.>-A..
CN1106 1P WHT :MINI TO F1 BOARD CN4
IF1102 IF0380A
IF1101 IFF560
TU1102 BTP-R0401
TU1101 BTP-R0403
IC2606 L780S09 9VREG
IC2604 L780S12 12VREG
IC2602 L780S09 9VREG
IC2603 L780S05 5VREG
IC2607 R033F-B1 33VREG
Q1112 2SK669 INVERTER2
Q1110 2SK669 INVERTER1
Q1113 DTC144ES SEARCH-SW
CN1102 1P :MINI
CN1104 2P WHT :S-MICRO
TO RF SPLITTER
CN1116 50P :BTOB TO B BOARD CN301
CN1117 50P :BTOB TO B BOARD CN303
CN1118 11P :BTOB TO A1 BOARD CN101
CN1119 11P :BTOB TO A1 BOARD TO CN102
CN1129 11P :BTOB TO BP BOARD CN3302
TO BP BOARD CN3301
Q1132 2SC2785 Y-BUFFER
Q1130 2SA1175 SYNC-DETECT
Q1101 2SA1175 SYNC-DETECT
D1131 1SS119 TEMP-DRIF
Q1135 2SC2785 HUE-CONT
D1132 RD4.7ES-B LIMITER
Q3517 2SC2785 V-OFF-SW
Q2001 2SC2785 STBY-SW2
D2001 1SS119 STBY-SW1
D1108 1SS119 V-MUTE-SW
Q2002 DTC144WS STBY-SW3
TO M BOARD CN002
CN1108
TO V BOARD CN01
CN1112 10P GRY :BTOB TO V BOARD CN02
CN1111 9P RED :S-MICRO TO F BOARD CN602
CN1100 11P :ACU TO F BOARD CN601
BCLK
BDAT
BINT
GND
B
R
NC
+B
ABL
CCH/D
CHKCA
Q1102 2SA1309 DRIVE
Q1104 2SC3311 SIRCS-OUT
Q1103 2SA1309 EXT-SIRCS
D1102 1SS119 SW
Q1105 2SC3311 SIRCS-OUT
Q1107 2SC3311 OFF-SHORT
Q1108 2SA1309 OFF-SHORT
D1103 1SS119 SW
Q1106 2SC3311 EXT-SIRCS-IN
D1104 RD6.8ESB PROTECT
D1105 RD6.8ESB PROTECT
SIRCS OUT J1101
SIRCS IN J1102
ST-BY 8V
ST-BY 5V
9V
12V
5V
30V
MONO (M)
VIDEO (PP)
Y, R-Y, B-Y (PP)
AUDIO (L, R)
19
20
21
22
23
24
25
26
27
28
29
30
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P

A

TU, IF BLOCK
AUDIO OUT
JUNGLE

PRINTED WIRING BOARD

– A Board –


1
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7
8
9
10
A
B
C
D
E
F
G
SONY
1-643-876-11
CAD
A
CN1117
CN1108
CN1112
CN1113
CN1120
CN1128
CN1119
CN1118
CN1110
CN1134
CN1132
CN1140
CN1103
CN1124
CN1111
IF1102
IF1101
TU1101
TU1102

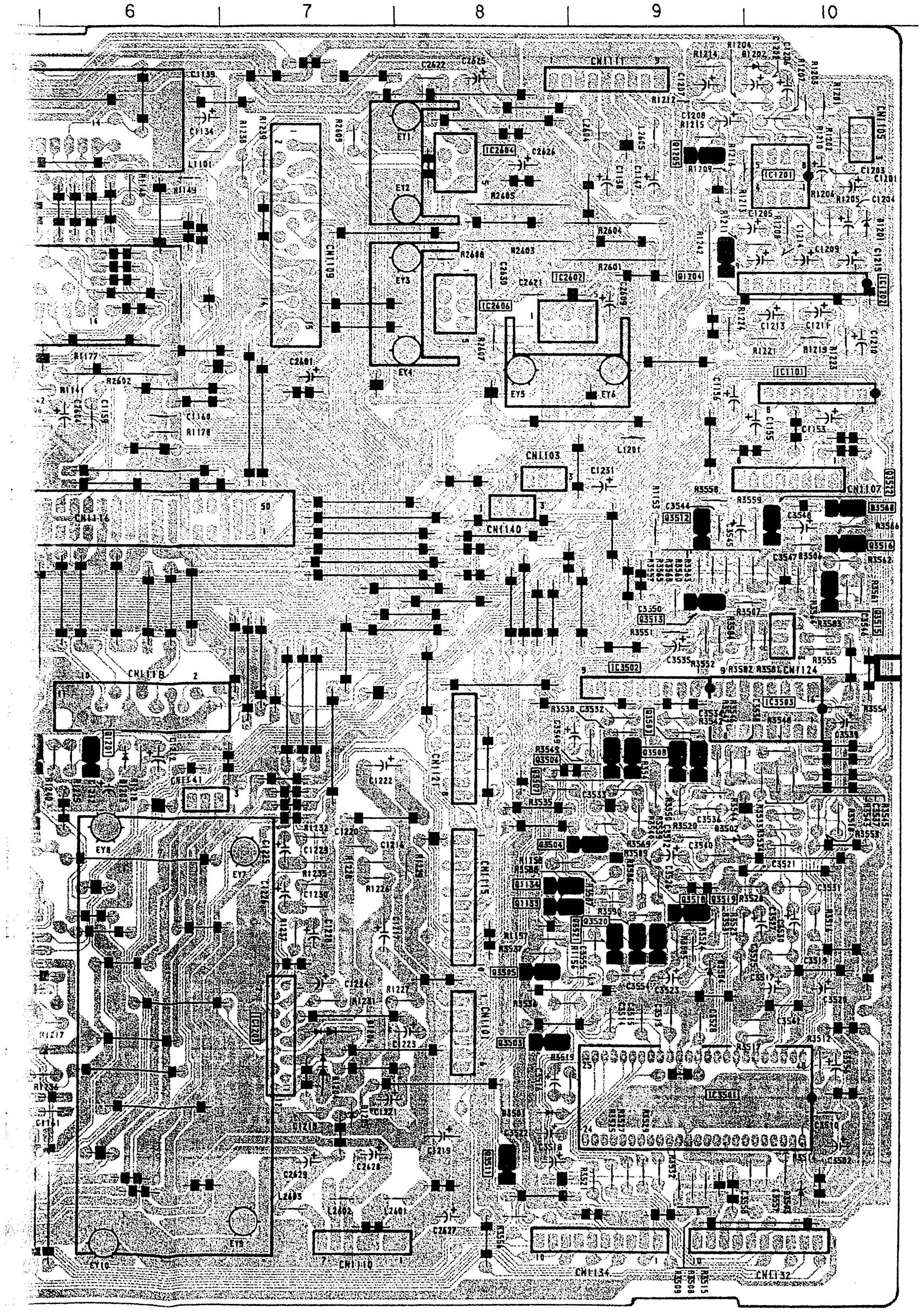
A Board

IC	
IC1101	C – 10
IC1201	A – 10
IC1202	B – 10
IC1203	F – 7
IC2602	B – 8
IC2603	A – 4
IC2604	A – 8
IC2606	B – 8
IC2607	C – 5
IC3501	G – 9
IC3502	D – 9
IC3503	D – 10

TRANSISTOR	
Q1101	E – 2
Q1102	D – 1
Q1103	F – 1
Q1104	D – 1
Q1105	D – 1
Q1106	F – 1
Q1107	E – 1
Q1108	E – 1
Q1110	B – 5
Q1112	B – 5
Q1113	C – 5
Q1114	C – 1
Q1115	C – 1
Q1116	B – 1
Q1117	C – 2
Q1118	C – 2
Q1119	B – 1
Q1130	E – 5
Q1132	E – 5
Q1133	F – 8
Q1134	E – 8
Q1135	E – 3
Q1201	E – 6
Q1202	E – 5
Q1203	E – 5
Q1204	B – 9
Q1205	A – 9
Q2001	G – 3
Q3503	F – 8
Q3504	E – 9
Q3505	F – 8
Q3506	E – 9
Q3507	E – 9
Q3508	E – 9
Q3509	E – 9
Q3511	G – 8
Q3512	C – 9
Q3513	D – 9
Q3514	C – 10
Q3515	D – 10
Q3516	C – 10
Q3517	F – 2
Q3518	F – 9
Q3519	F – 9
Q3520	F – 9
Q3521	F – 9
Q3522	C – 10

DIODE	
D1101	F – 4
D1102	F – 1
D1103	F – 1
D1104	E – 1
D1105	E – 1
D1106	B – 1
D1107	C – 1
D1108	D – 2
D1130	F – 5
D1131	F – 3
D1132	E – 2
D1201	B – 10
D1202	A – 10
D1203	E – 6
D1204	G – 7
D1206	F – 7
D2001	G – 3
D3501	G – 8
D3502	E – 9

IF BLOCK
DIO OUT
IGLE


6
7
8
9
10
CN1111
IC1201
IC2604
IC2602
IC2606
CN1109
CN1103
CN1140
IC1101
CN1107
IC3502
CN1124
IC3503
CN1118
CN1115
CN1101
IC3541
CN1110
CN1134
CN1132

A Board

IC	
IC1101	C－10
IC1201	A－10
IC1202	B－10
IC1203	F－7
IC2602	B－8
IC2603	A－4
IC2604	A－8
IC2606	B－8
IC2607	C－5
IC3501	G－9
IC3502	D－9
IC3503	D－10

TRANSISTOR	
Q1101	E－2
Q1102	D－1
Q1103	F－1
Q1104	D－1
Q1105	D－1
Q1106	F－1
Q1107	E－1
Q1108	E－1
Q1110	B－5
Q1112	B－5
Q1113	C－5
Q1114	C－1
Q1115	C－1
Q1116	B－1
Q1117	C－2
Q1118	C－2
Q1119	B－1
Q1130	E－5
Q1132	E－5
Q1133	F－8
Q1134	E－8
Q1135	E－3
Q1201	E－6
Q1202	E－5
Q1203	E－5
Q1204	B－9
Q1205	A－9
Q2001	G－3
Q3503	F－8
Q3504	E－9
Q3505	F－8
Q3506	E－9
Q3507	E－9
Q3508	E－9
Q3509	E－9
Q3511	G－8
Q3512	C－9
Q3513	D－9
Q3514	C－10
Q3515	D－10
Q3516	C－10
Q3517	F－2
Q3518	F－9
Q3519	F－9
Q3520	F－9
Q3521	F－9
Q3522	C－10

DIODE	
D1101	F－4
D1102	F－1
D1103	F－1
D1104	E－1
D1105	E－1
D1106	B－1
D1107	C－1
D1108	D－2
D1130	F－5
D1131	F－3
D1132	E－2
D1201	B－10
D1202	A－10
D1203	E－6
D1204	G－7
D1206	F－7
D2001	G－3
D3501	G－8
D3502	E－9

B VIDEO-SW, AUDIO-SW, SHARPNESS, DINMIC PIC, CHROMA DECORDER R, G, B INTERFACE

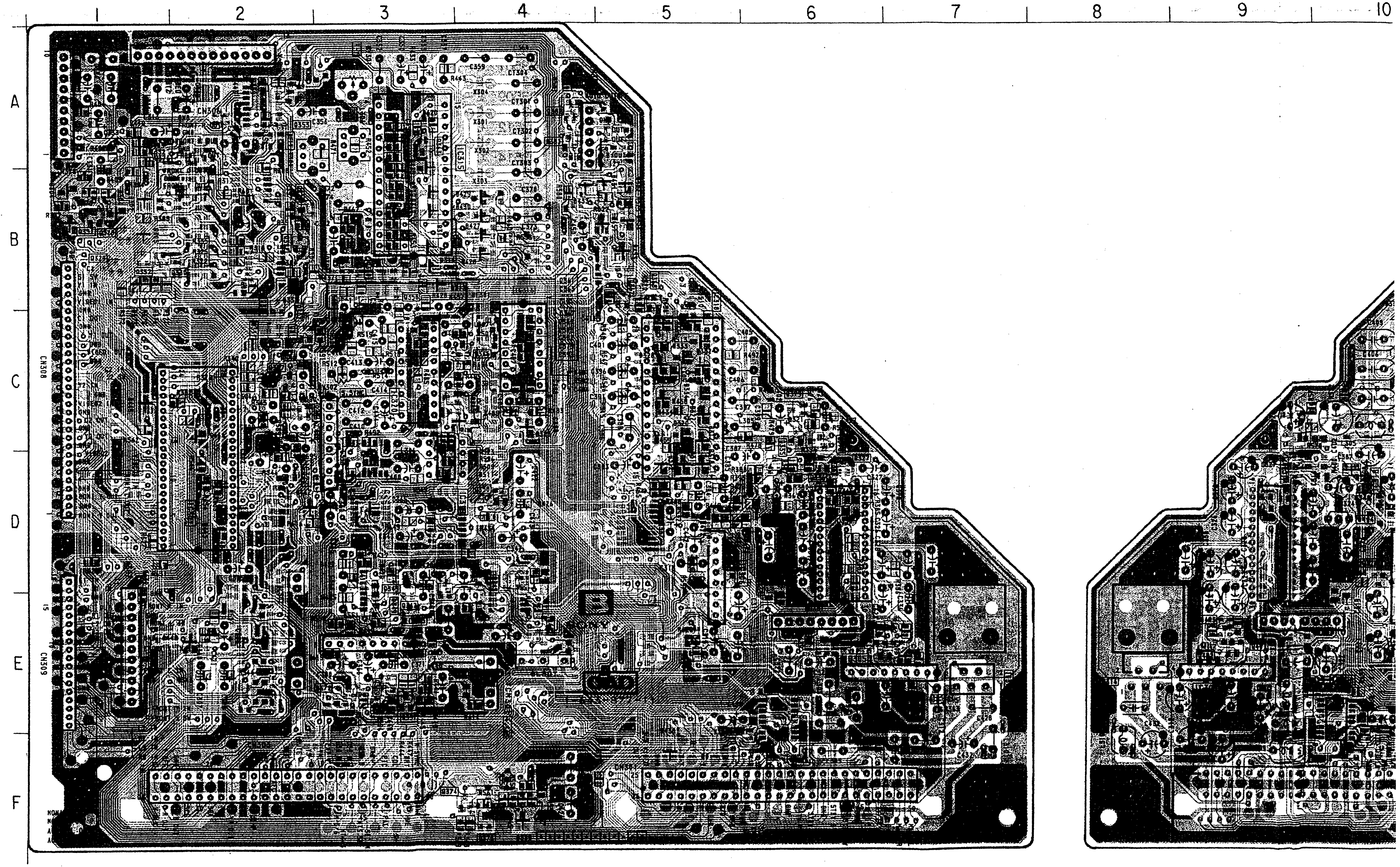
PRINTED WIRING BOARD

B Board

IC	
IC301	D – 2
IC302	B – 13
IC303	A – 13
IC304	B – 13
IC305	E – 6
IC306	D – 5
IC307	D – 6
IC308	E – 10
IC309	E – 12
IC310	E – 12
IC311	D – 12
IC312	D – 13
IC313	E – 3
IC314	E – 7
IC315	B – 3
IC316	C – 4
IC317	D – 13
IC318	C – 5
IC319	D – 3
IC320	C – 3
IC321	D – 11
IC322	C – 3
TRANSISTOR	
Q301	C – 2
Q302	C – 2
Q303	B – 14
Q304	B – 14
Q305	A – 14
Q306	A – 14
Q307	F – 13
Q308	B – 14
Q309	F – 13
Q310	B – 14
Q311	B – 14
Q312	F – 13
Q313	C – 2
Q314	F – 13
Q315	B – 14
Q316	C – 2
Q317	F – 13
Q318	F – 13
Q319	E – 14
Q320	D – 13
Q321	D – 13
Q322	B – 2
Q323	B – 2
Q324	E – 14
Q325	D – 13
Q326	D – 10
Q327	D – 6
Q328	B – 1
Q329	B – 1
Q330	B – 1
Q331	B – 1
Q332	B – 1
Q335	D – 6
Q336	D – 6
Q337	E – 6
Q338	E – 10
Q339	B – 11
Q340	D – 3
Q341	B – 12
Q342	B – 11
Q343	D – 4
Q344	B – 12
Q345	D – 3
Q346	D – 12
Q347	E – 3
Q348	C – 12
Q349	E – 3
Q350	D – 4
Q351	E – 12
Q354	B – 3
Q356	D – 11
Q357	E – 3
Q358	B – 3
Q359	E – 3
Q360	B – 3
Q361	E – 12
Q362	D – 12
Q363	A – 3
Q365	C – 3
Q366	C – 4
Q367	B – 5
Q368	B – 5
Q369	B – 11
Q370	B – 11
Q371	E – 6
Q372	E – 3
Q373	F – 4
Q374	F – 4
Q375	F – 12
Q376	F – 12
Q377	F – 12
Q378	C – 6
Q379	C – 6
Q380	E – 13
Q381	A – 4
Q382	A – 4
Q385	C – 13
Q386	C – 2
Q387	C – 2
Q389	B – 12
Q390	B – 12
Q391	B – 12
Q392	B – 12
Q393	A – 11
Q394	A – 11
Q395	A – 11
Q396	A – 11
Q397	D – 13
Q398	D – 13
Q399	F – 13
Q400	E – 4
Q401	E – 9
Q402	E – 9
Q403	E – 9
Q404	D – 10
Q405	E – 14
Q406	E – 14
Q407	C – 12
Q408	C – 12
Q409	C – 12
Q410	C – 12
Q441	E – 11
Q442	E – 4
DIODE	
D301	B – 1
D302	B – 1
D303	B – 1
D304	B – 1
D305	B – 1
D306	E – 7
D307	C – 4
D308	D – 3
D309	B – 3
D310	B – 3
D311	B – 3
D312	D – 5
D313	B – 3
D314	B – 3
D315	D – 12
D317	C – 5
D318	D – 5
D319	D – 5
D320	C – 5
D321	C – 6
D322	C – 5
D323	C – 4
D324	C – 11
D328	C – 5
D329	C – 5
D330	B – 10
D331	C – 5
D332	C – 5
D333	C – 5
D334	C – 5
D335	B – 11
D336	C – 11
D337	C – 11
D338	C – 11
D339	F – 4
D340	F – 12
D341	D – 9
D427	B – 4
D428	B – 4
D429	B – 4
D430	B – 4
D431	B – 5
D432	B – 5
D433	B – 4
D434	C – 5
D435	B – 3
D436	E – 11
D437	E – 11
D439	E – 6
D442	D – 2
D448	E – 2
D449	C – 12
D450	C – 3
VARIABLE RESISTOR	
RV301	A – 3
RV302	C – 3
TRIMMER	
CT303	B – 4
CT304	A – 4

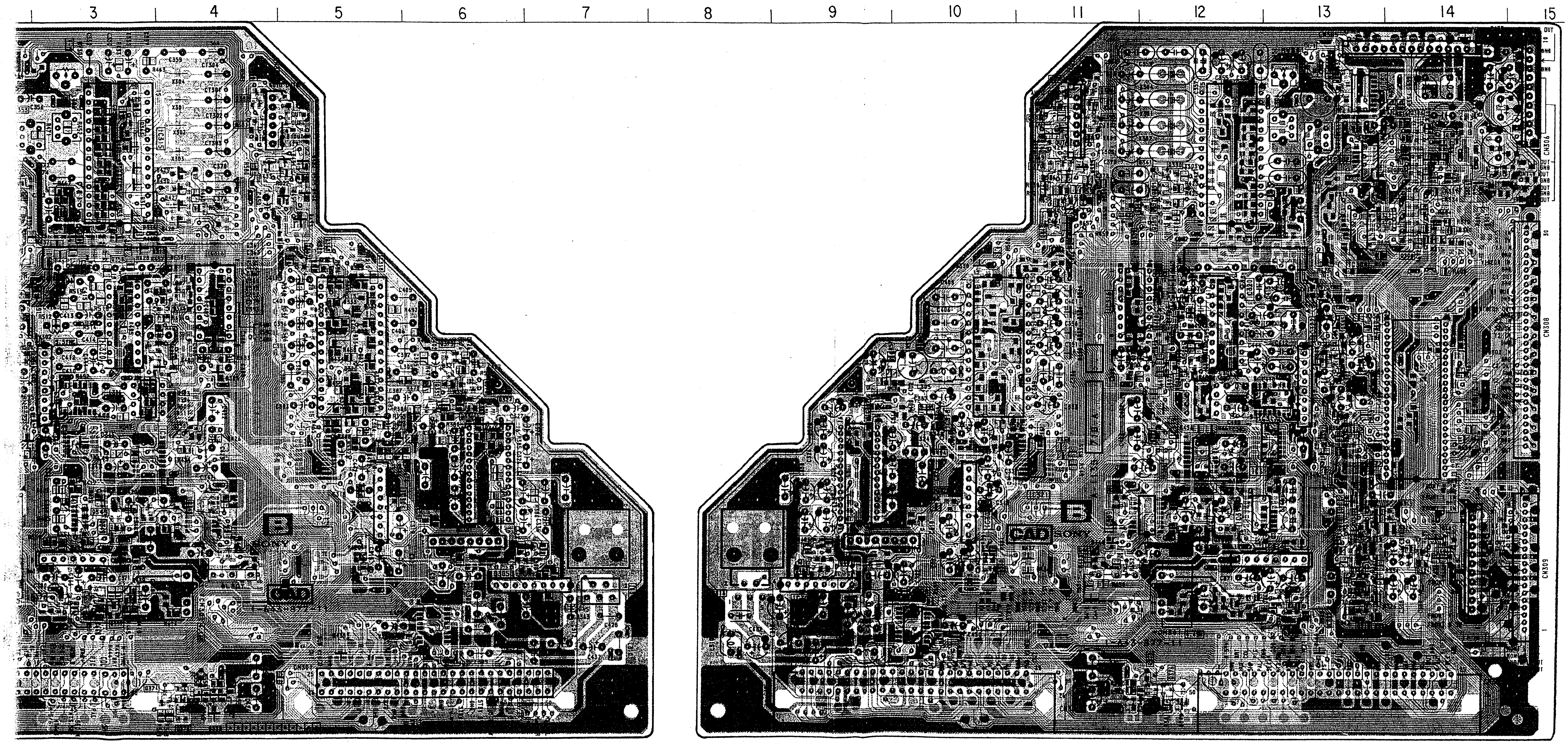
– B Board (Conductor Side) –

– B Bo



SHARPNESS,
ECORDER

– B Board (Component Side) –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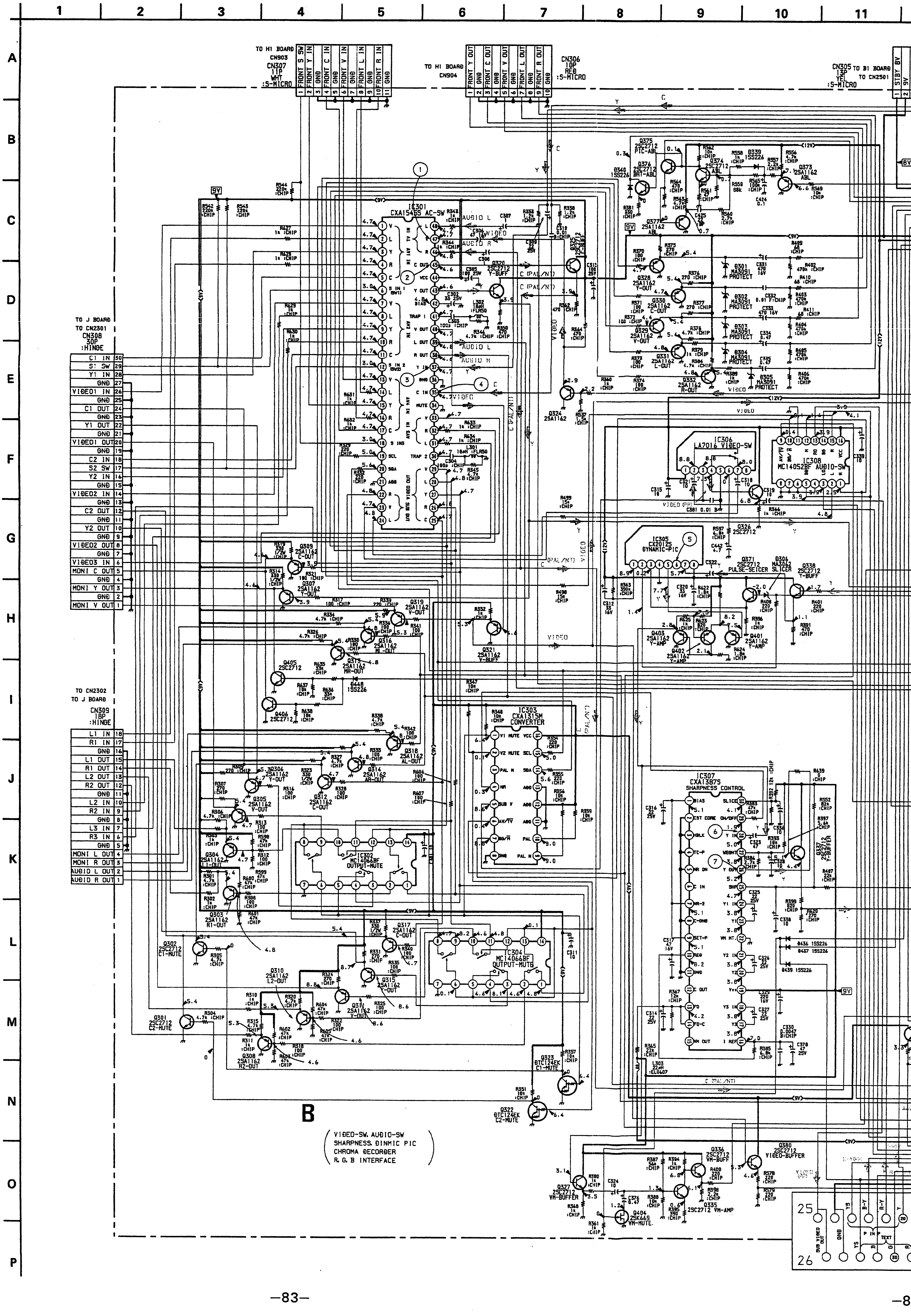
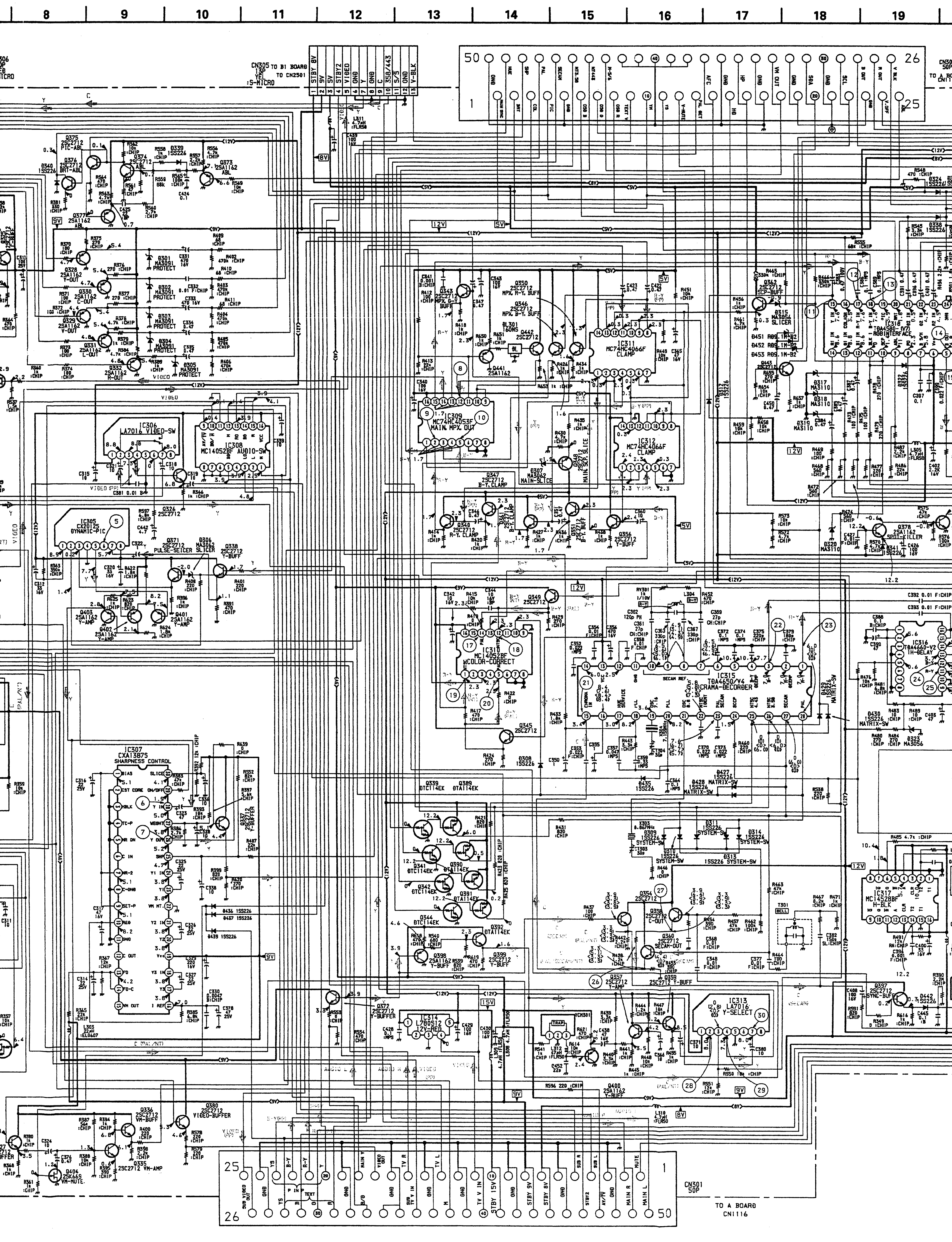
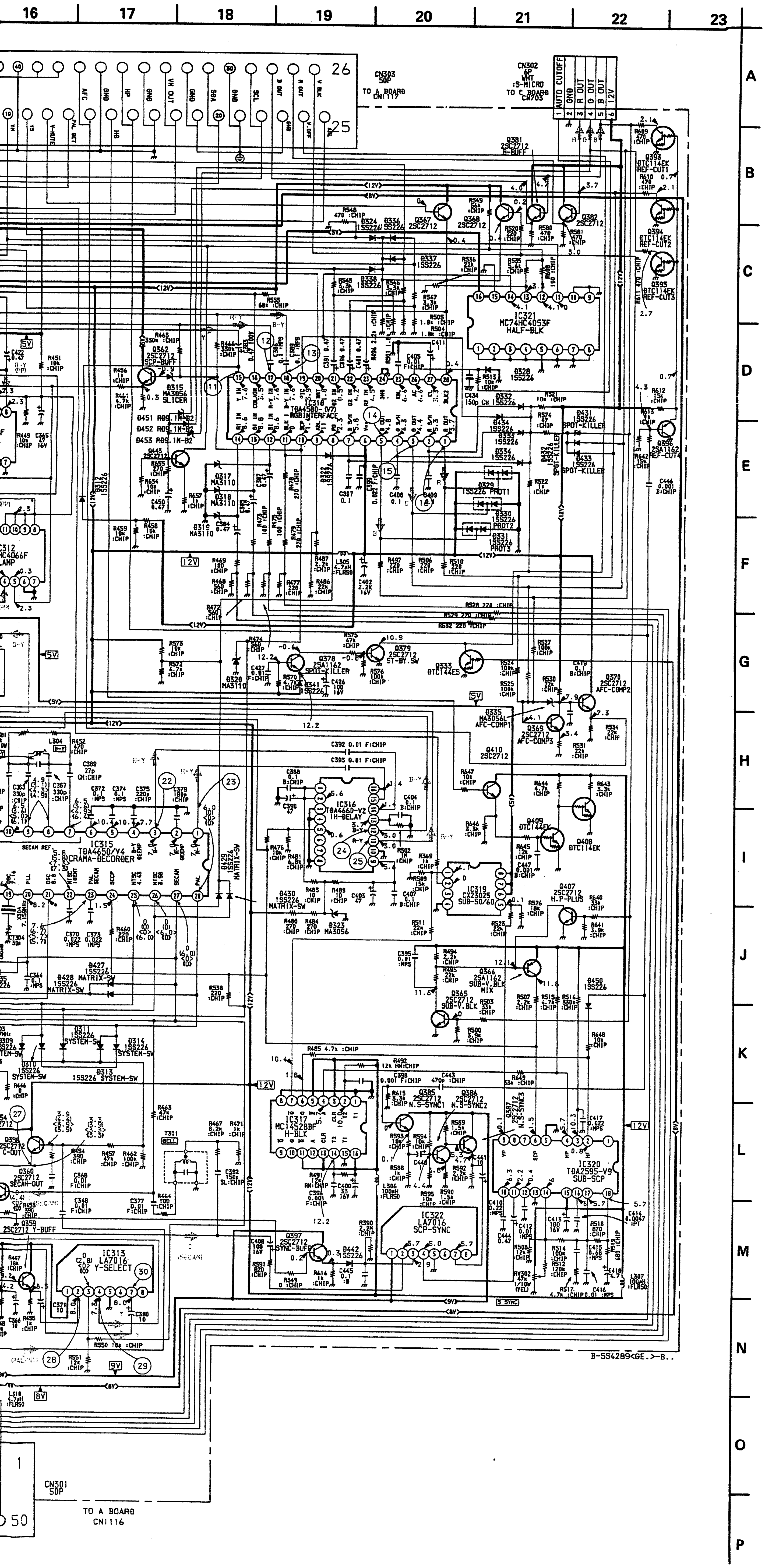
11
12
13
14
15
B
CAD
SONY
CN306
CN308
CN309

(6) SCHEMATIC DIAGRAM OF B BOARD

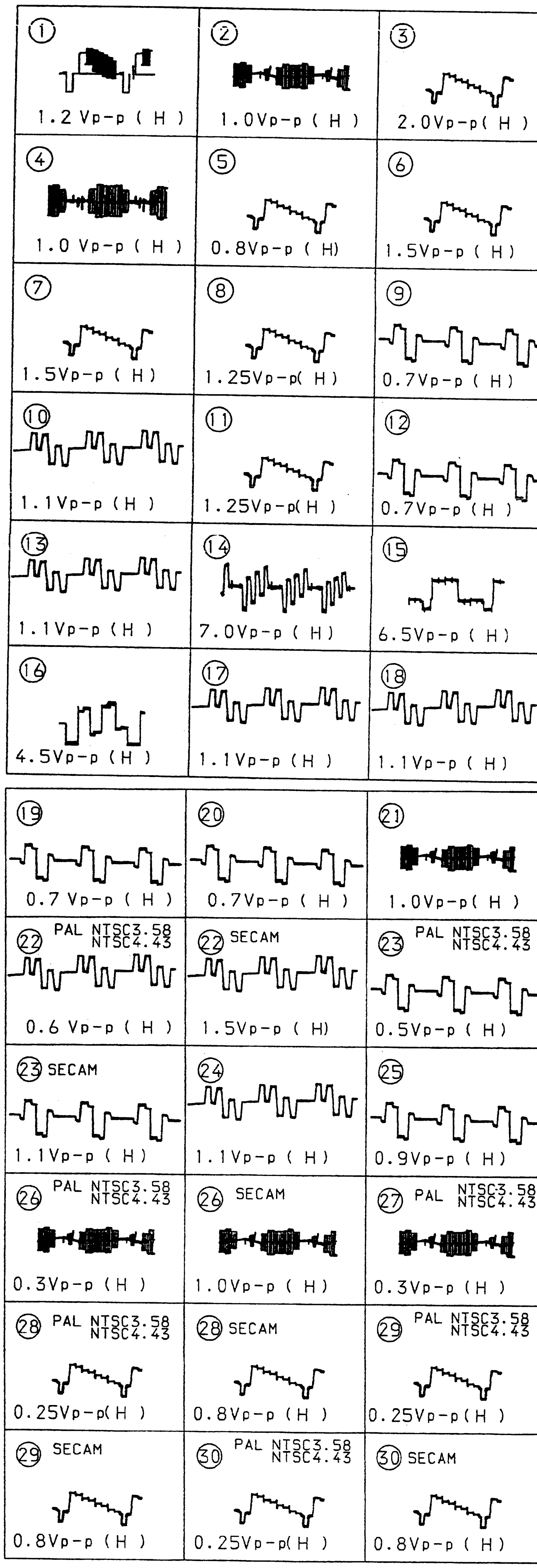


TO H1 BOARD CN903
CN307 11P WHT :S-MICRO
FRONT S SW
FRONT Y IN
GND
FRONT C IN
GND
FRONT V IN
GND
FRONT L IN
GND
FRONT R IN
GND
TO H1 BOARD CN904
CN306 10P RED :S-MICRO
FRONT Y OUT
FRONT C OUT
FRONT V OUT
FRONT L OUT
FRONT R OUT
CN305 TO B1 BOARD 13P YEL TO CN2501 :S-MICRO
STBY 8V
9V
TO J BOARD TO CN2301
CN308 30P :HINGE
C1 IN
S1 SW
Y1 IN
VIDEO1 IN
C1 OUT
Y1 OUT
VIDEO1 OUT
C2 IN
S2 SW
Y2 IN
VIDEO2 IN
C2 OUT
Y2 OUT
VIDEO2 OUT
VIDEO3 IN
MONI C OUT
MONI Y OUT
MONI V OUT
TO CN2302 TO J BOARD
CN309 18P :HINGE
L1 IN
R1 IN
L1 OUT
R1 OUT
L2 OUT
R2 OUT
L2 IN
R2 IN
L3 IN
R3 IN
MONI L OUT
MONI R OUT
AUDIO L OUT
AUDIO R OUT
IC301 CXA1545S AC-SW
IC302 MC14066BF OUTPUT-MUTE
IC303 CXA1315M CONVERTER
IC304 MC14066BF OUTPUT-MUTE
IC305 CX20125 DYNAMIC-PIC
IC306 LA7016 VIDEO-SW
IC307 CXA1387S SHARPNESS CONTROL
IC308 MC14052BF AUDIO-SW
Q375 2SC2712 PIC-ABL
Q376 2SC2712 BRT-ABL
Q374 2SC2712 ABL
Q373 2SA1162 ABL
Q377 2SA1162 ABL
Q328 2SA1162 Y-OUT
Q330 2SA1162 C-OUT
Q329 2SA1162 V-OUT
Q331 2SA1162 L-OUT
Q332 2SA1162 R-OUT
Q320 2SC2712 Y-BUFF
Q325 2SC2712 C-BUFF
Q324 2SA1162
D301 MA3091 PROTECT
D302 MA3091 PROTECT
D303 MA3091 PROTECT
D304 MA3091 PROTECT
D305 MA3091 PROTECT
Q326 2SC2712
Q371 2SC2712 PULSE-SEICER
D306 MA3062 SLICER
Q338 2SC2712 Y-BUFF
Q403 2SA1162 Y-AMP
Q402 2SA1162 Y-AMP
Q401 2SA1162 Y-AMP
Q309 2SA1162 C-OUT
Q307 2SA1162 Y-OUT
Q319 2SA1162 V-OUT
Q316 2SA1162 HI-OUT
Q314 2SA1162 Y-OUT
Q313 2SA1162 MR-OUT
Q405 2SC2712
Q406 2SC2712
D440 1SS226
Q321 2SA1162 Y-BUFF
Q318 2SA1162 AL-OUT
Q306 2SA1162 Y-OUT
Q314 2SA1162 AR-OUT
Q312 2SA1162 C-OUT
Q305 2SA1162 V-OUT
Q304 2SA1162 L1-OUT
Q303 2SA1162 R1-OUT
Q302 2SC2712 C1-MUTE
Q301 2SC2712 C2-MUTE
Q317 2SA1162 C-OUT
Q315 2SA1162 C-OUT
Q310 2SA1162 L2-OUT
Q311 2SA1162 V-OUT
Q308 2SA1162 R2-OUT
Q323 DTC124EK C1-MUTE
Q322 DTC124EK C2-MUTE
Q327 2SC2712 VM-BUFFER
Q404 2SK669 VM-MUTE
Q336 2SC2712 VM-BUFF
Q335 2SC2712 VM-AMP
Q380 2SC2712 VIDEO-BUFFER
Q337 2SC2712 Y-BUFFER
D436 1SS226
D437 1SS226
D439 1SS226
D340 1SS226
D339 1SS226
L301 18μH :FLR50
L302 18μH :FLR50
L303 22μH :EL0607
AUDIO L
AUDIO R
VIDEO
C (PAL/NT)
Y
C
(9V)
(12V)
9V
8V
B
VIDEO-SW, AUDIO-SW
SHARPNESS, DINMIC PIC
CHROMA DECORDER
R. G. B INTERFACE
SUB VIDEO OUT
GND
YS
B-Y
R-Y
P IN P
TEXT
1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P

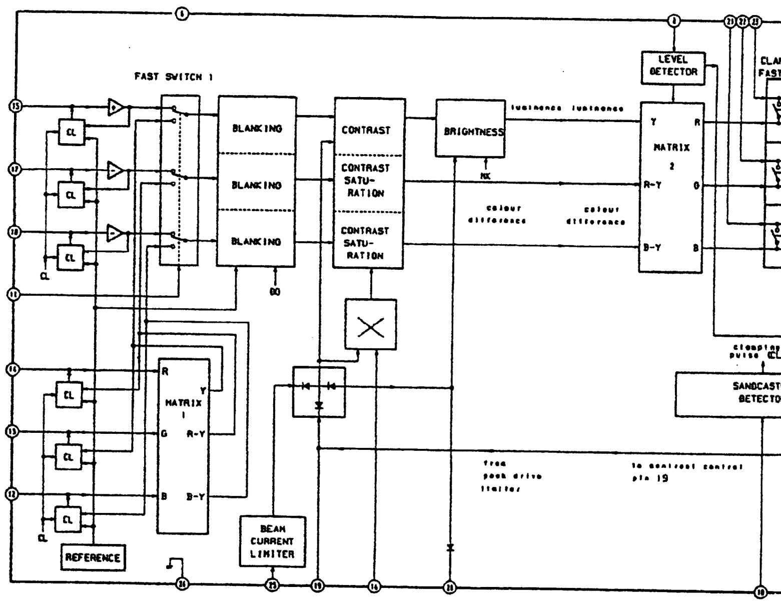

8
9
10
11
12
13
14
15
16
17
18
19
CN305 TO B1 BOARD 13P YEL :S-MICRO
TO CN2501
STBY 8V
5V
STBY2
VIDEO
GND
Y
GND
C
358/443
S/S
GND
V-BLK
Q375 2SC2712 PIC-ABL
Q376 2SC2712 BRT-ABL
Q374 2SC2712 ABL
Q373 2SA1162 ABL
Q377 2SA1162
Q328 2SA1162 Y-OUT
Q330 2SA1162 C-OUT
Q329 2SA1162 V-OUT
Q331 2SA1162 L-OUT
Q332 2SA1162 R-OUT
D301 MA3091 PROTECT
D302 MA3091 PROTECT
D303 MA3051 PROTECT
D304 MA3091 PROTECT
D305 MA3091 PROTECT
IC306 LA7016 VIDEO-SW
IC308 MC14052BF AUDIO-SW
IC305 CX20125 DYNAMIC-PIC
Q326 2SC2712
Q371 2SC2712 PULSE-SEICER
D306 MA3062 SLICER
Q338 2SC2712 Y-BUFF
Q403 2SA1162 Y-AMP
Q402 2SA1162 Y-AMP
Q401 2SA1162 Y-AMP
IC307 CXA1387S SHARPNESS CONTROL
Q337 2SC2712 Y-BUFFER
D436 1SS226
D437 1SS226
D439 1SS226
L303 22μH :EL0607
Q336 2SC2712 VM-BUFF
Q335 2SC2712 VM-AMP
Q380 2SC2712 VIDEO-BUFFER
Q404 2SK669 VM-MUTE
IC309 MC74HC4053F MAIN MPX OUT
Q343 2SC2712 MPX 6-Y BUFF
Q350 2SC2712 MPX R-Y BUFF
Q346 2SC2712 MPX B-Y BUFF
DL301 160NS
Q442 2SC2712
Q441 2SA1162
IC311 MC74HC4066F CLAMP
IC312 MC74HC4066F CLAMP
Q348 2SC2712 MAIN SCP SLICE
D307 MA3062 MAIN-SLICE
Q347 2SC2712 B-Y CLAMP
Q340 2SC2712 R-Y CLAMP
Q341 2SC2712 B-Y CLAMP
Q351 2SC2712 R-Y CLAMP
Q356 2SC2712 Y-BUFF
Q349 2SC2712
IC310 MC14052BF COLOR-CORRECT
Q345 2SC2712
D308 1SS226
IC315 TDA4650/V4 CRAMA-DECORDER
D427 1SS226 MATRIX-SW
D428 1SS226 MATRIX-SW
D435 1SS226
Q339 DTC114EK
Q389 DTA114EK
Q341 DTC114EK
Q390 DTA114EK
Q342 DTC114EK
Q391 DTA114EK
Q344 DTC114EK
Q392 DTA114EK
Q398 2SA1162 Y-BUFF
Q399 2SC2712 Y-BUFF
Q372 2SC2712 Y-BUFFER
IC314 L78O512 12V-REG
D309 1SS226 SYSTEM-SW
D310 1SS226 SYSTEM-SW
D311 1SS226 SYSTEM-SW
D313 1SS226 SYSTEM-SW
D314 1SS226 SYSTEM-SW
Q354 2SC2712
Q358 2SC2712 C-OUT
Q360 2SC2712 SECAM-OUT
Q357 2SC2712 Y-AMP
Q359 2SC2712 Y-BUFF
T301 BELL
IC313 LA7016 Y-SELECT
Q400 2SA1162 Y-BUFF
Q362 2SC2712 SCP-BUFF
D315 MA3056 SLICER
IC318 TDA4580-(V2) RGBINTERFACE
D317 MA3110
D318 MA3110
D319 MA3110
D320 MA3110
D322 1SS226
Q378 2SA1162 SPOT-KILLER
IC316 TDA4660-V2 1H-DELAY
D430 1SS226 MATRIX-SW
D323 MA3056
IC317 MC14528BF H-BLK
Q397 2SC2712 SYNC-BUFF
D442 1SS226
Q324 1SS226
D338 1SS226
CN306 50P TO A BOARD CN1116
CN301 50P
TO A BOARD CN1116
SUB VIDEO OUT
GND
YS
B-Y
R-Y
Y
P IN P
TEXT
B
G
R
MAIN Y
VIDEO OUT
B/G
TV R
SUB TV V IN
TV L
M
TV V IN
STBY 15V
STBY 9V
STBY 8V
SUB R
SUB L
STBY2
AV/TV
MAIN R
MUTE
MAIN L
GND
HUE
SHP
PAL
SECAM
NTSC
H-S/S
AFC
HD
VM OUT
SBA
SCL
B OUT
R OUT
V BLK
MAIN SYNC
BRT
COL
PIC
SDA
TEXT Y
YS
V-MUTE
PLL DET
12V
9V
8V
5V
15V


16
17
18
19
20
21
22
23
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
CN303 50P TO A BOARD CN1117
CN302 6P WHT :S-MICRO TO C BOARD CN705
AUTO CUTOFF
GND
R OUT
G OUT
B OUT
12V
IC321 MC74HC4053F HALF-BLK
IC318 TDA4580-(V7) RGB INTERFACE
IC316 TDA4660-V2 1H-DELAY
IC315 TDA4650/V4 CHRAMA-DECORDER
IC319 CXZ3025 SUB-50/60
IC317 MC14528BF H-BLK
IC320 TDA2595-V9 SUB-SCP
IC322 LA7016 SCP-SYNC
IC313 LA7016 Y-SELECT
B-SS4289<GE.>-B..
CN301 50P
TO A BOARD CN1116

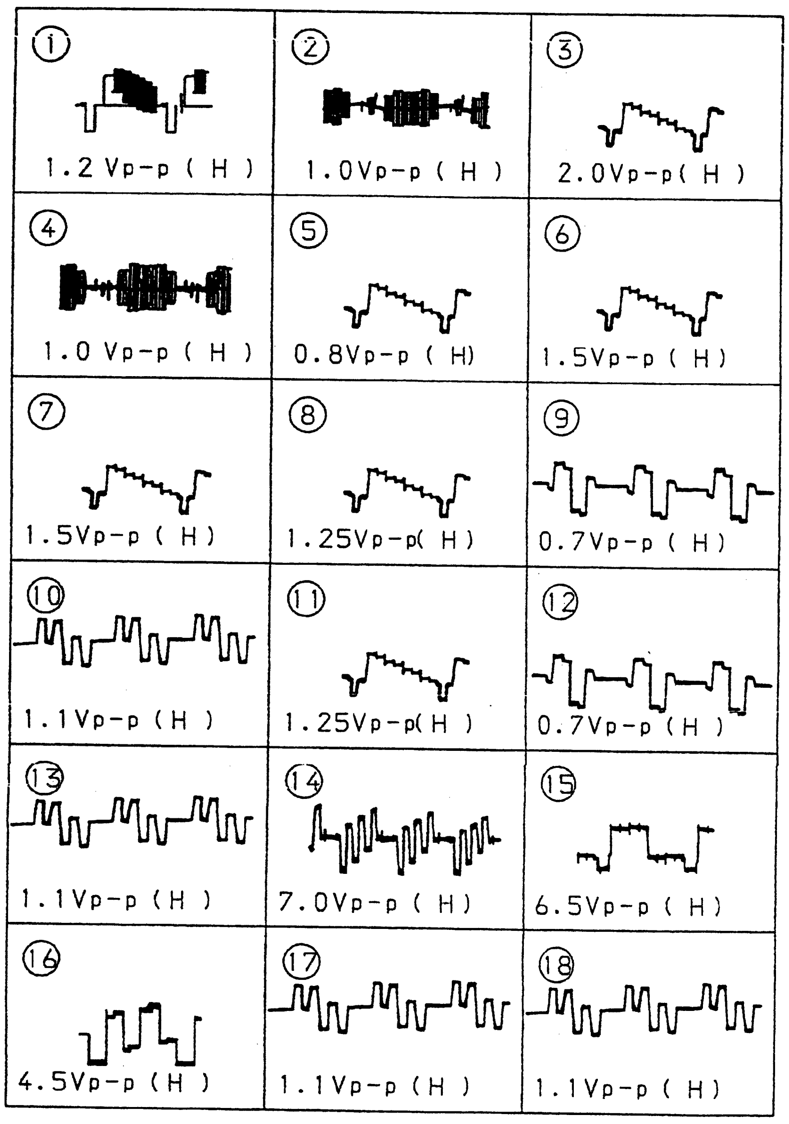
B BOARD WAVEFORMS

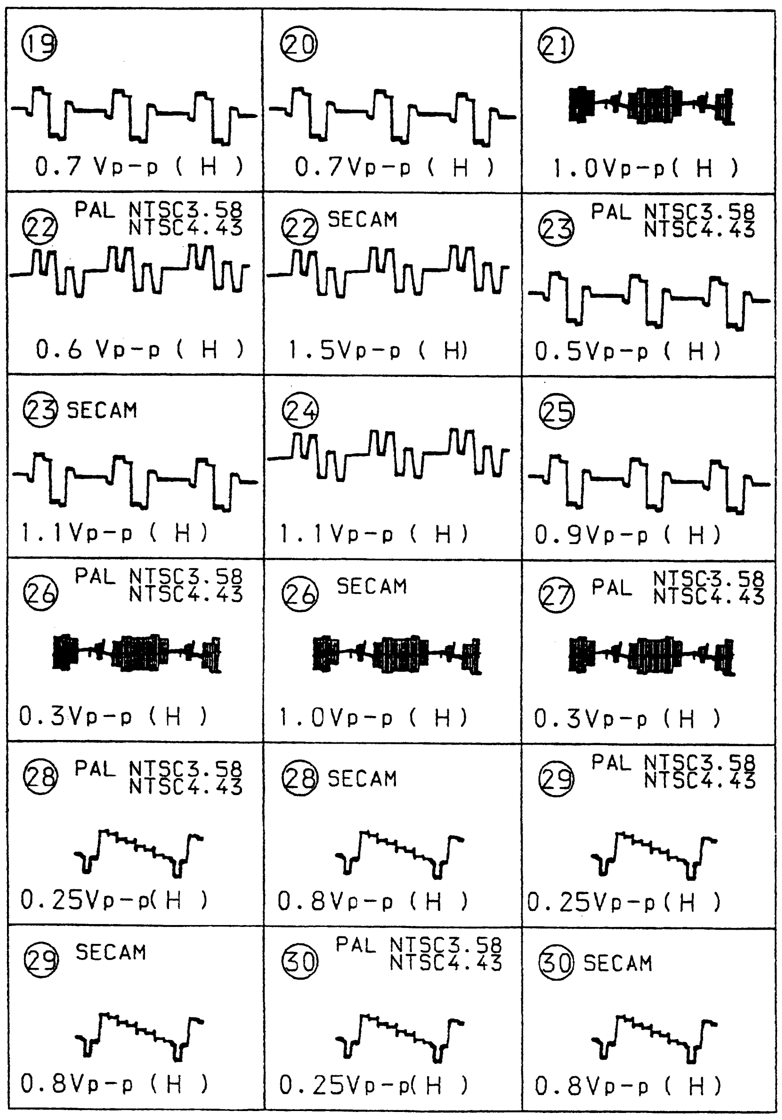


B Board IC318 TDA4580

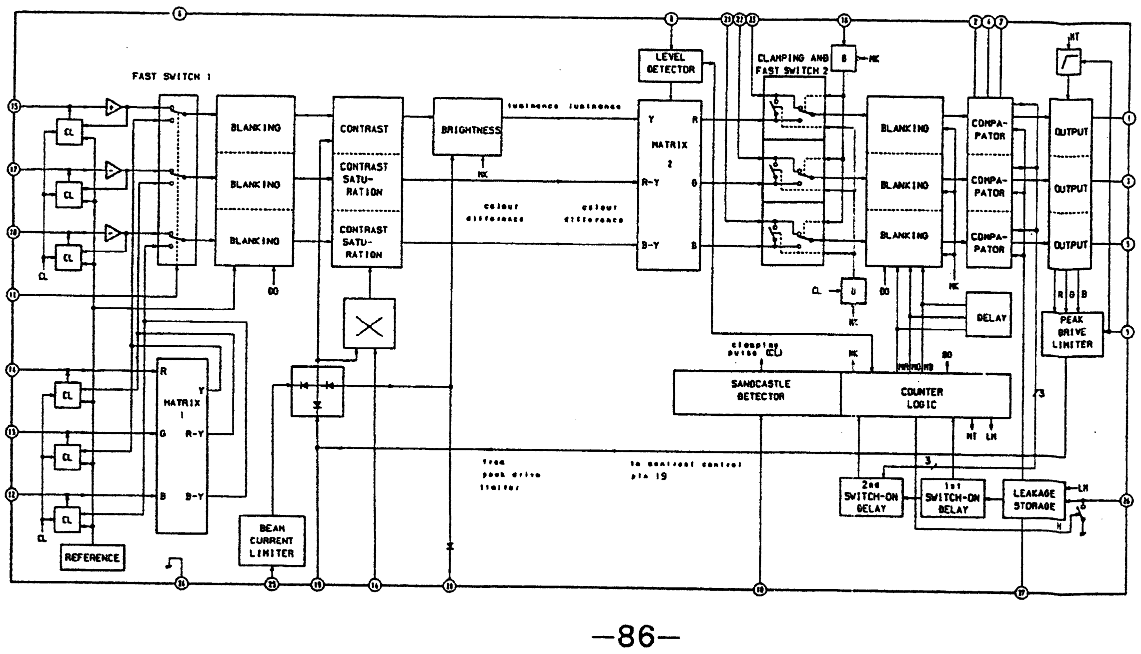

FAST SWITCH 1
BLANKING
CONTRAST
BRIGHTNESS
CONTRAST SATURATION
MATRIX
LEVEL DETECTOR
R-Y
B-Y
colour difference
REFERENCE
BEAM CURRENT LIMITER
SANDCASTLE DETECTOR

B BOARD WAVEFORMS

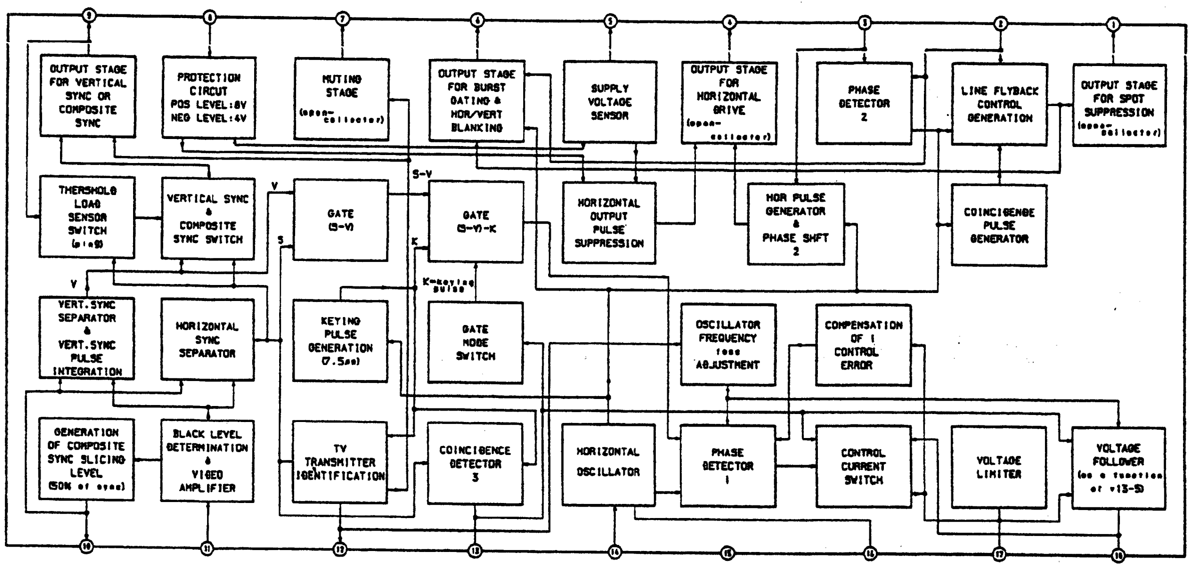

①
1.2 Vp-p (H)
②
1.0Vp-p (H)
③
2.0Vp-p(H)
④
1.0 Vp-p (H)
⑤
0.8Vp-p (H)
⑥
1.5Vp-p (H)
⑦
1.5Vp-p (H)
⑧
1.25Vp-p(H)
⑨
0.7Vp-p (H)
⑩
1.1Vp-p (H)
⑪
1.25Vp-p(H)
⑫
0.7Vp-p (H)
⑬
1.1Vp-p (H)
⑭
7.0Vp-p (H)
⑮
6.5Vp-p (H)
⑯
4.5Vp-p (H)
⑰
1.1Vp-p (H)
⑱
1.1Vp-p (H)


⑲
0.7 Vp-p (H)
⑳
0.7Vp-p (H)
㉑
1.0Vp-p(H)
㉒ PAL NTSC3.58 NTSC4.43
0.6 Vp-p (H)
㉒ SECAM
1.5Vp-p (H)
㉓ PAL NTSC3.58 NTSC4.43
0.5Vp-p (H)
㉓ SECAM
1.1Vp-p (H)
㉔
1.1Vp-p (H)
㉕
0.9Vp-p (H)
㉖ PAL NTSC3.58 NTSC4.43
0.3Vp-p (H)
㉖ SECAM
1.0Vp-p (H)
㉗ PAL NTSC3.58 NTSC4.43
0.3Vp-p (H)
㉘ PAL NTSC3.58 NTSC4.43
0.25Vp-p(H)
㉘ SECAM
0.8Vp-p (H)
㉙ PAL NTSC3.58 NTSC4.43
0.25Vp-p(H)
㉙ SECAM
0.8Vp-p (H)
㉚ PAL NTSC3.58 NTSC4.43
0.25Vp-p(H)
㉚ SECAM
0.8Vp-p (H)

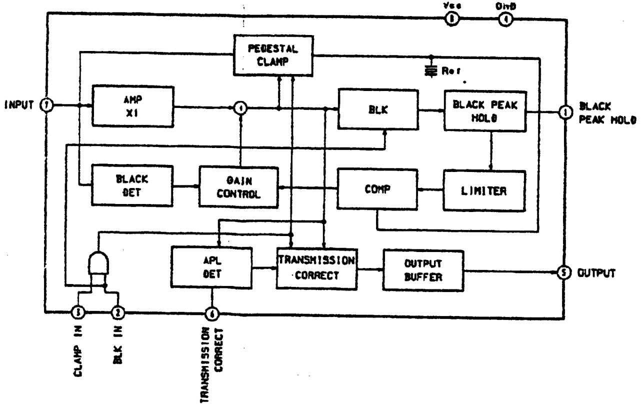
B Board IC318 TDA4580


FAST SWITCH 1
CL
BLANKING
BLANKING
BLANKING
CONTRAST
CONTRAST SATU-RATION
CONTRAST SATU-RATION
BRIGHTNESS
luminance
luminance
colour difference
colour difference
HK
BO
LEVEL DETECTOR
MATRIX 2
Y
R-Y
B-Y
R
G
B
CLAMPING AND FAST SWITCH 2
BLANKING
BLANKING
BLANKING
COMPA-PATOR
COMPA-PATOR
COMPA-PATOR
OUTPUT
OUTPUT
OUTPUT
HT
R G B
PEAK DRIVE LIMITER
DELAY
clamping pulse (CL)
SANDCASTLE DETECTOR
COUNTER LOGIC
HT
LH
from peak drive limiter
to contrast control pin 19
2nd SWITCH-ON DELAY
1st SWITCH-ON DELAY
LEAKAGE STORAGE
MATRIX 1
R
G
B
Y
R-Y
B-Y
REFERENCE
BEAM CURRENT LIMITER

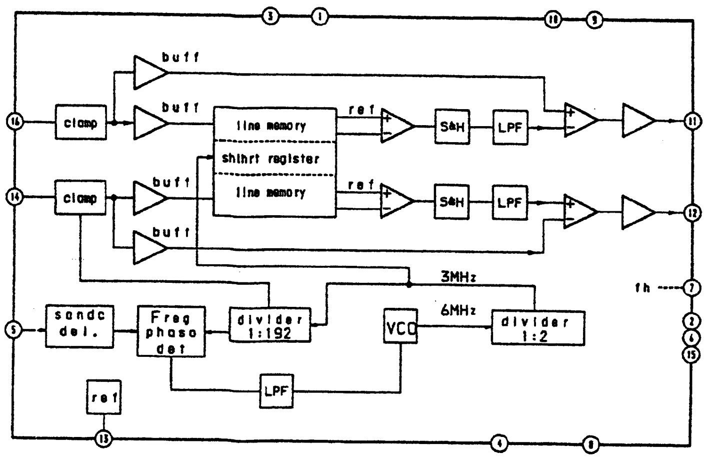
B Board IC320 TDA2595-V9


OUTPUT STAGE FOR VERTICAL SYNC OR COMPOSITE SYNC
PROTECTION CIRCUT POS LEVEL:8V NEG LEVEL:4V
MUTING STAGE (open-collector)
OUTPUT STAGE FOR BURST GATING & HOR/VERT BLANKING
SUPPLY VOLTAGE SENSOR
OUTPUT STAGE FOR HORIZONTAL DRIVE (open-collector)
PHASE DETECTOR 2
LINE FLYBACK CONTROL GENERATION
OUTPUT STAGE FOR SPOT SUPPRESSION (open-collector)
THERSHOLD LOAD SENSOR SWITCH (pin 9)
VERTICAL SYNC & COMPOSITE SYNC SWITCH
V
GATE (S-V)
S-V
S
K
GATE (S-V)-K
HORIZONTAL OUTPUT PULSE SUPPRESSION
HOR PULSE GENERATOR & PHASE SHFT 2
COINCIDENCE PULSE GENERATOR
V
VERT. SYNC SEPARATOR & VERT. SYNC PULSE INTEGRATION
HORIZONTAL SYNC SEPARATOR
KEYING PULSE GENERATION (7.5μs)
K=keying pulse
GATE MODE SWITCH
OSCILLATOR FREQUENCY (ess ADJUSTMENT
COMPENSATION OF I CONTROL ERROR
GENERATION OF COMPOSITE SYNC SLICING LEVEL (50% of sync)
BLACK LEVEL DETERMINATION & VIDEO AMPLIFIER
TV TRANSMITTER IDENTIFICATION
COINCIDENCE DETECTOR 3
HORIZONTAL OSCILLATOR
PHASE DETECTOR 1
CONTROL CURRENT SWITCH
VOLTAGE LIMITER
VOLTAGE FOLLOWER (as a function of v13-5)

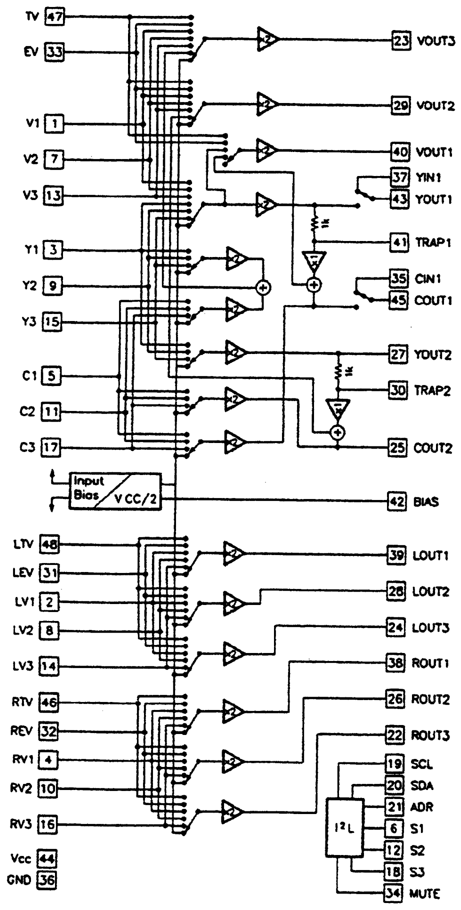
B Board IC305 CX20125


Vcc
GND
PEDESTAL CLAMP
Ref
INPUT
AMP X1
BLK
BLACK PEAK HOLD
BLACK PEAK HOLD
BLACK DET
GAIN CONTROL
COMP
LIMITER
APL DET
TRANSMISSION CORRECT
OUTPUT BUFFER
OUTPUT
CLAMP IN
BLK IN
TRANSMISSION CORRECT

B Board IC316 TDA4660-V2

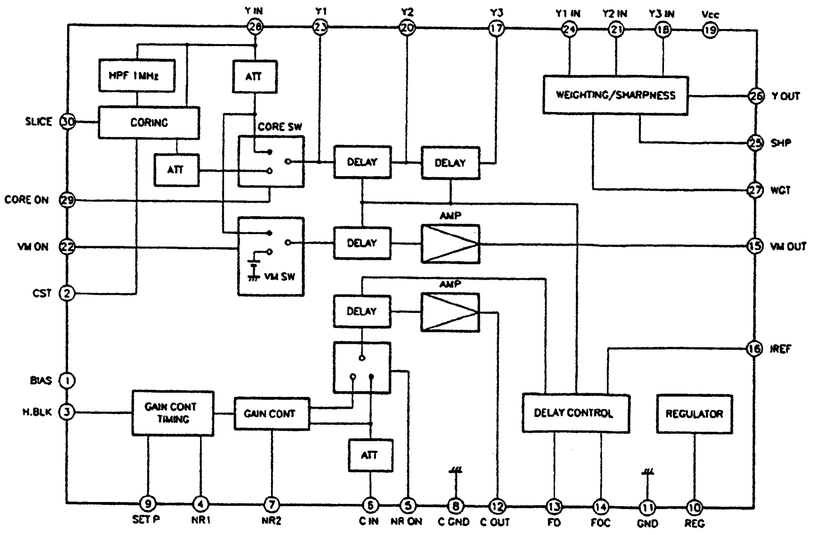

buff
buff
buff
buff
clamp
clamp
line memory
shihrt register
line memory
ref
ref
S&H
S&H
LPF
LPF
3MHz
6MHz
fh
sandc del.
Freq phase det
divider 1:192
VCO
divider 1:2
LPF
ref

B Board IC301 CXA1545S


TV 47
EV 33
V1 1
V2 7
V3 13
Y1 3
Y2 9
Y3 15
C1 5
C2 11
C3 17
Input Bias
VCC/2
LTV 48
LEV 31
LV1 2
LV2 8
LV3 14
RTV 46
REV 32
RV1 4
RV2 10
RV3 16
Vcc 44
GND 36
23 VOUT3
29 VOUT2
40 VOUT1
37 YIN1
43 YOUT1
1k
41 TRAP1
35 CIN1
45 COUT1
27 YOUT2
1k
30 TRAP2
25 COUT2
42 BIAS
39 LOUT1
28 LOUT2
24 LOUT3
38 ROUT1
26 ROUT2
22 ROUT3
I²L
19 SCL
20 SDA
21 ADR
6 S1
12 S2
18 S3
34 MUTE

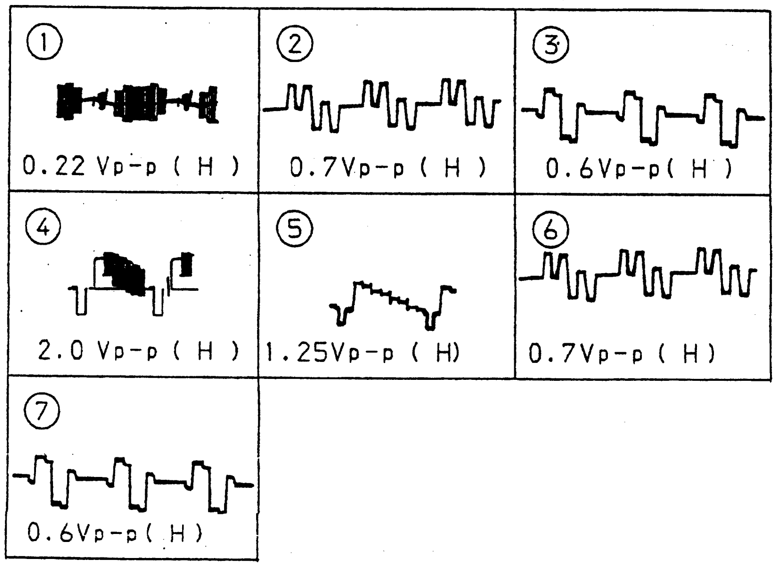
CXA1545S

B Board IC307 CXA1387S

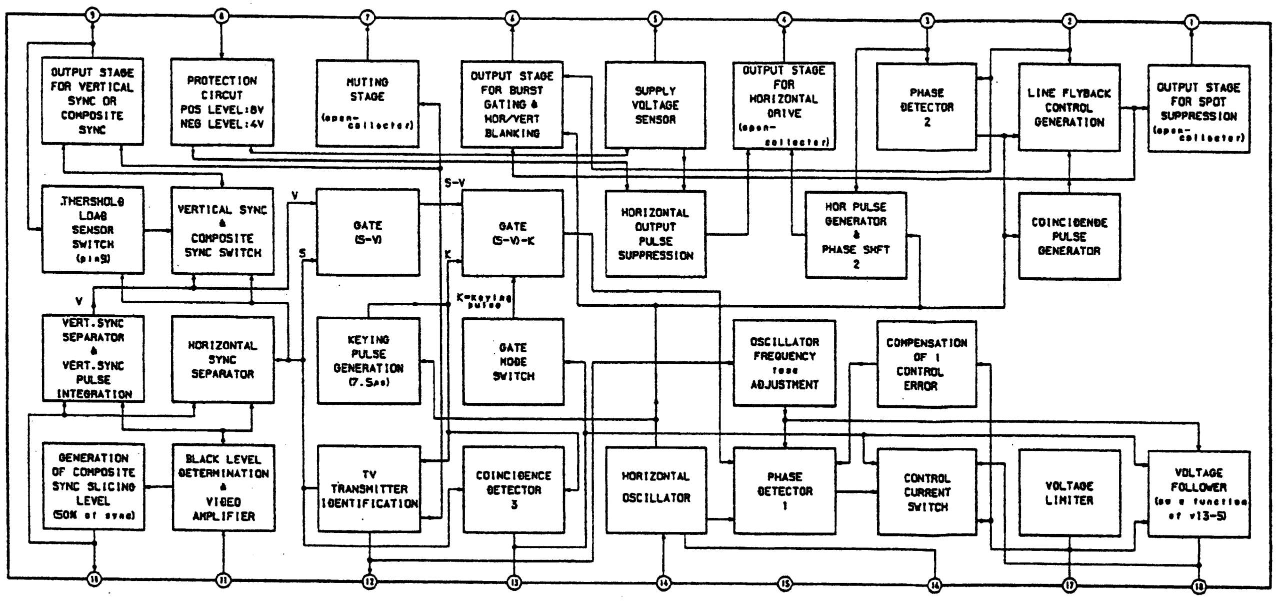

Y IN 28
Y1 23
Y2 20
Y3 17
Y1 IN 24
Y2 IN 21
Y3 IN 18
Vcc 19
HPF 1MHz
ATT
CORING
ATT
CORE SW
DELAY
DELAY
WEIGHTING/SHARPNESS
SLICE 30
CORE ON 29
VM ON 22
CST 2
BIAS 1
H.BLK 3
26 Y OUT
25 SHP
27 WGT
15 VM OUT
16 IREF
DELAY
AMP
VM SW
DELAY
AMP
GAIN CONT TIMING
GAIN CONT
ATT
DELAY CONTROL
REGULATOR
9 SET P
4 NR1
7 NR2
6 C IN
5 NR ON
8 C GND
12 C OUT
13 FO
14 FOC
11 GND
10 REG

(7) SCHEMATIC DIAGRAM OF BP BOARD

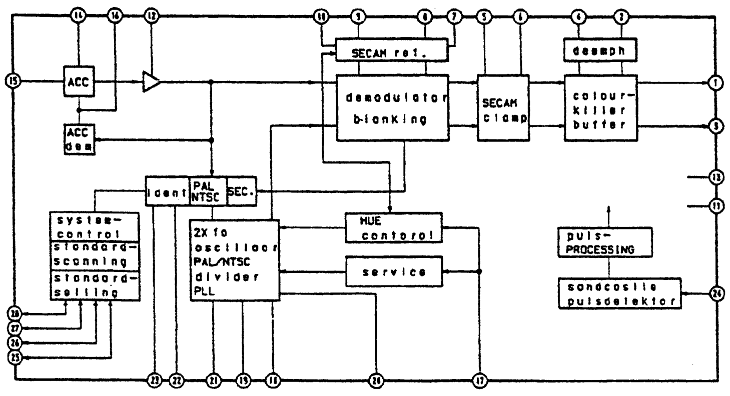
BP BOARD WAVEFORMS



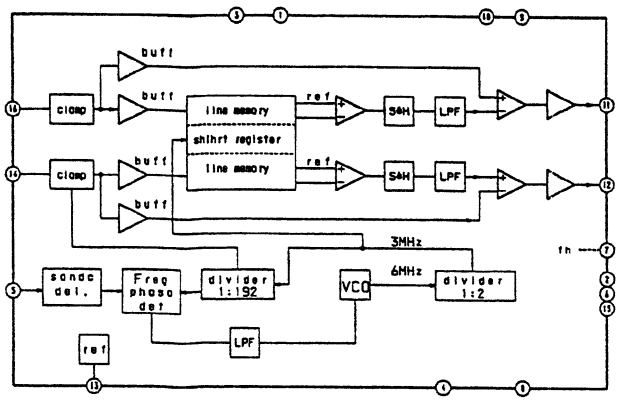
BP Board IC3306 TDA2595-V9

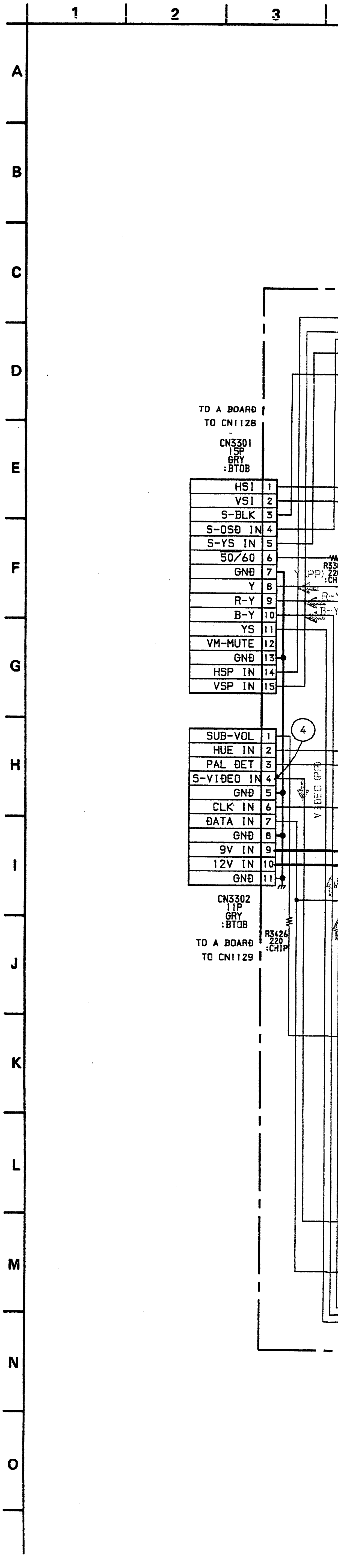

OUTPUT STAGE FOR VERTICAL SYNC OR COMPOSITE SYNC
PROTECTION CIRCUT POS LEVEL:8V NEG LEVEL:4V
MUTING STAGE (open-collector)
OUTPUT STAGE FOR BURST GATING & HOR/VERT BLANKING
SUPPLY VOLTAGE SENSOR
OUTPUT STAGE FOR HORIZONTAL DRIVE (open-collector)
PHASE DETECTOR 2
LINE FLYBACK CONTROL GENERATION
OUTPUT STAGE FOR SPOT SUPPRESSION (open-collector)
THERSHOLD LOAD SENSOR SWITCH (pin9)
VERTICAL SYNC & COMPOSITE SYNC SWITCH
V
GATE (S-V)
S-V
GATE (S-V)-K
HORIZONTAL OUTPUT PULSE SUPPRESSION
HOR PULSE GENERATOR & PHASE SHFT 2
COINCIDENDE PULSE GENERATOR
S
K
K=keying pulse
V
VERT.SYNC SEPARATOR & VERT.SYNC PULSE INTEGRATION
HORIZONTAL SYNC SEPARATOR
KEYING PULSE GENERATION (7.5μs)
GATE MODE SWITCH
OSCILLATOR FREQUENCY fose ADJUSTMENT
COMPENSATION OF I CONTROL ERROR
GENERATION OF COMPOSITE SYNC SLICING LEVEL (50% of sync)
BLACK LEVEL DETERMINATION & VIDEO AMPLIFIER
TV TRANSMITTER IDENTIFICATION
COINCIDENCE DETECTOR 3
HORIZONTAL OSCILLATOR
PHASE DETECTOR 1
CONTROL CURRENT SWITCH
VOLTAGE LIMITER
VOLTAGE FOLLOWER (as a function of v13-5)

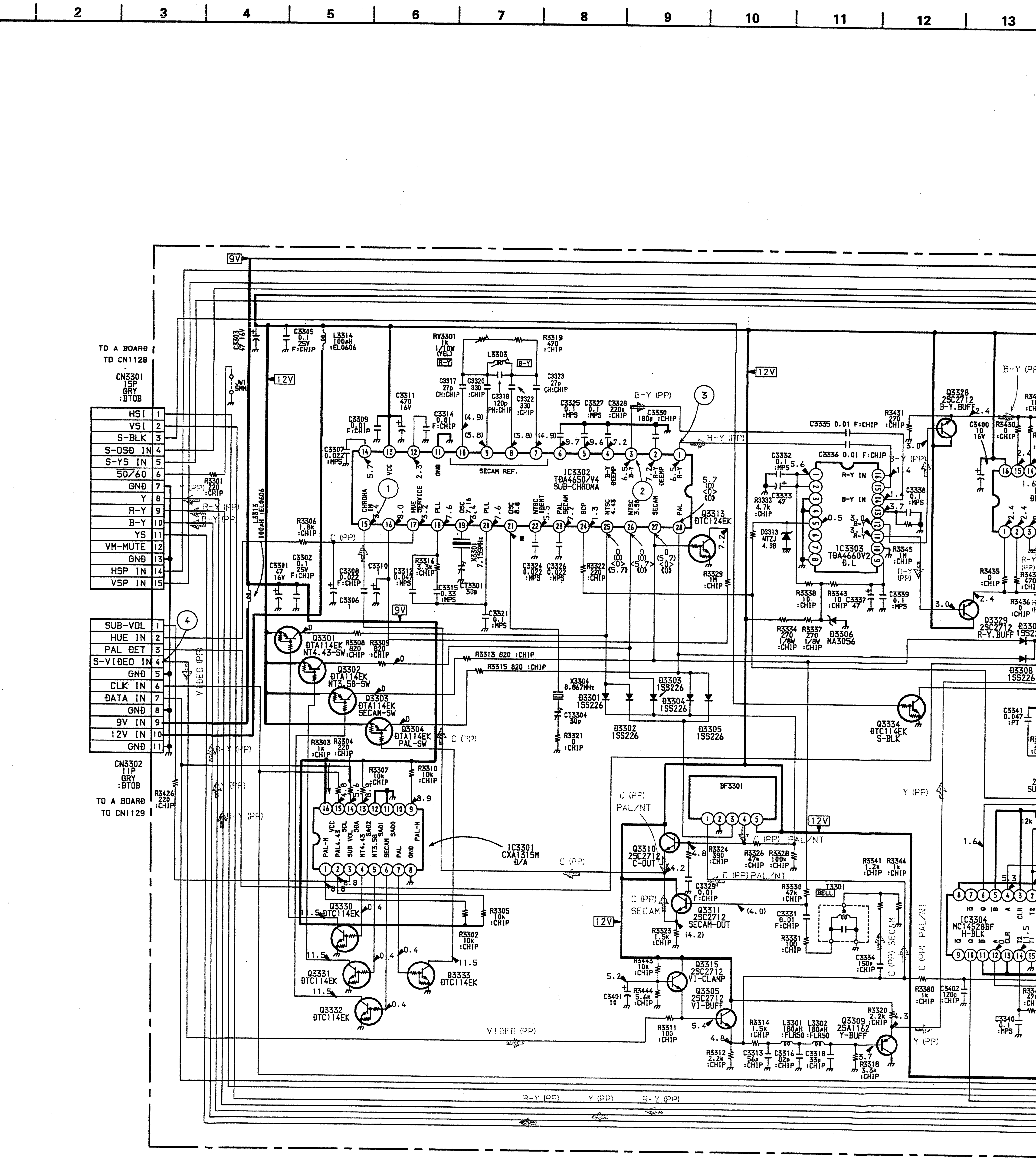
BP Board IC3302 TDA4650-V4


SECAM ref.
ACC
ACC dem
demodulator blanking
SECAM clamp
deemph
colour-killer buffer
ident
PAL NTSC
SEC.
system-control
standard-scanning
standard-setting
2X fo oscillaor PAL/NTSC divider PLL
HUE contorol
service
puls-PROCESSING
sandcastle pulsdetektor

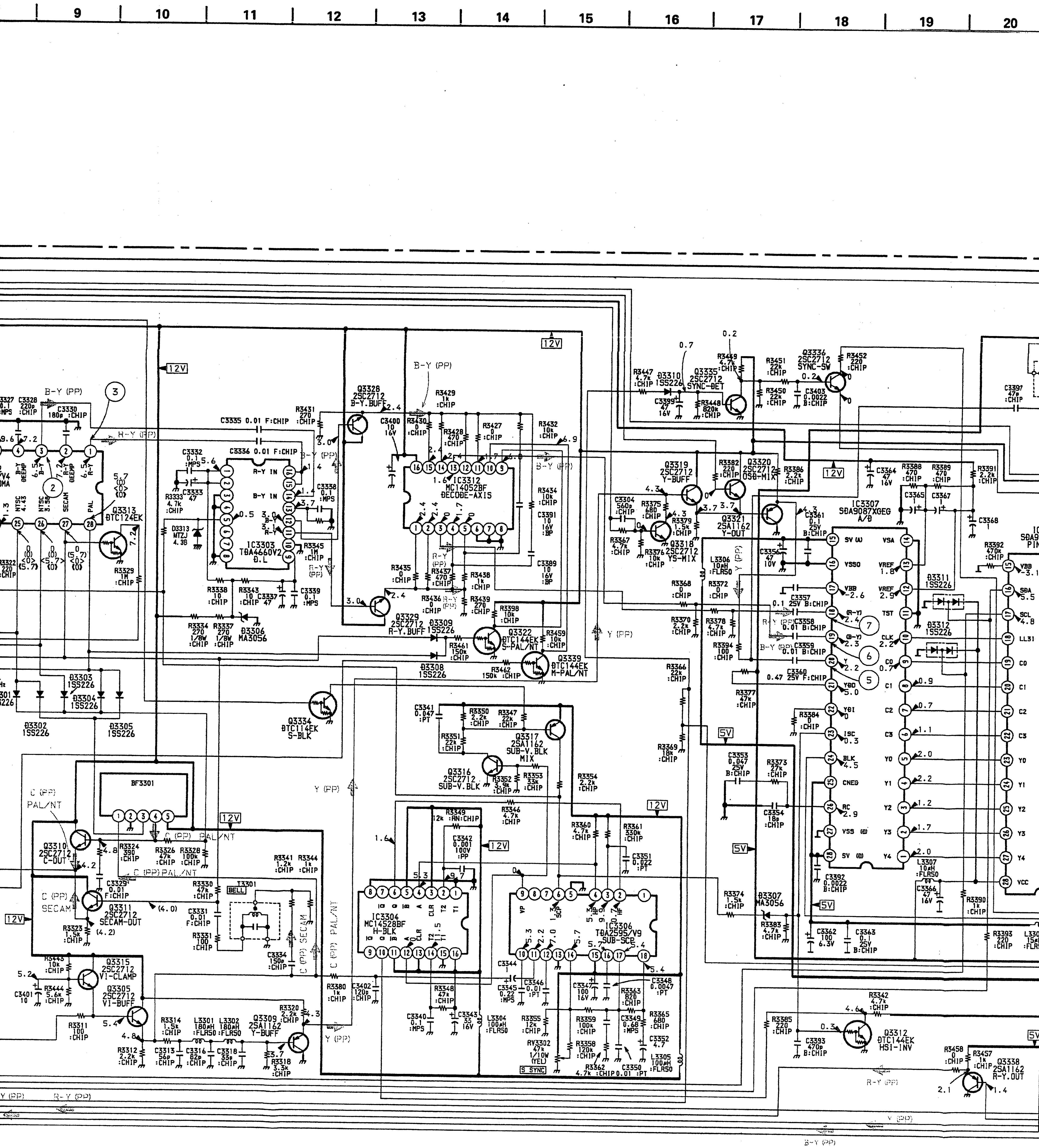
BP Board IC3303 TDA4660-V2

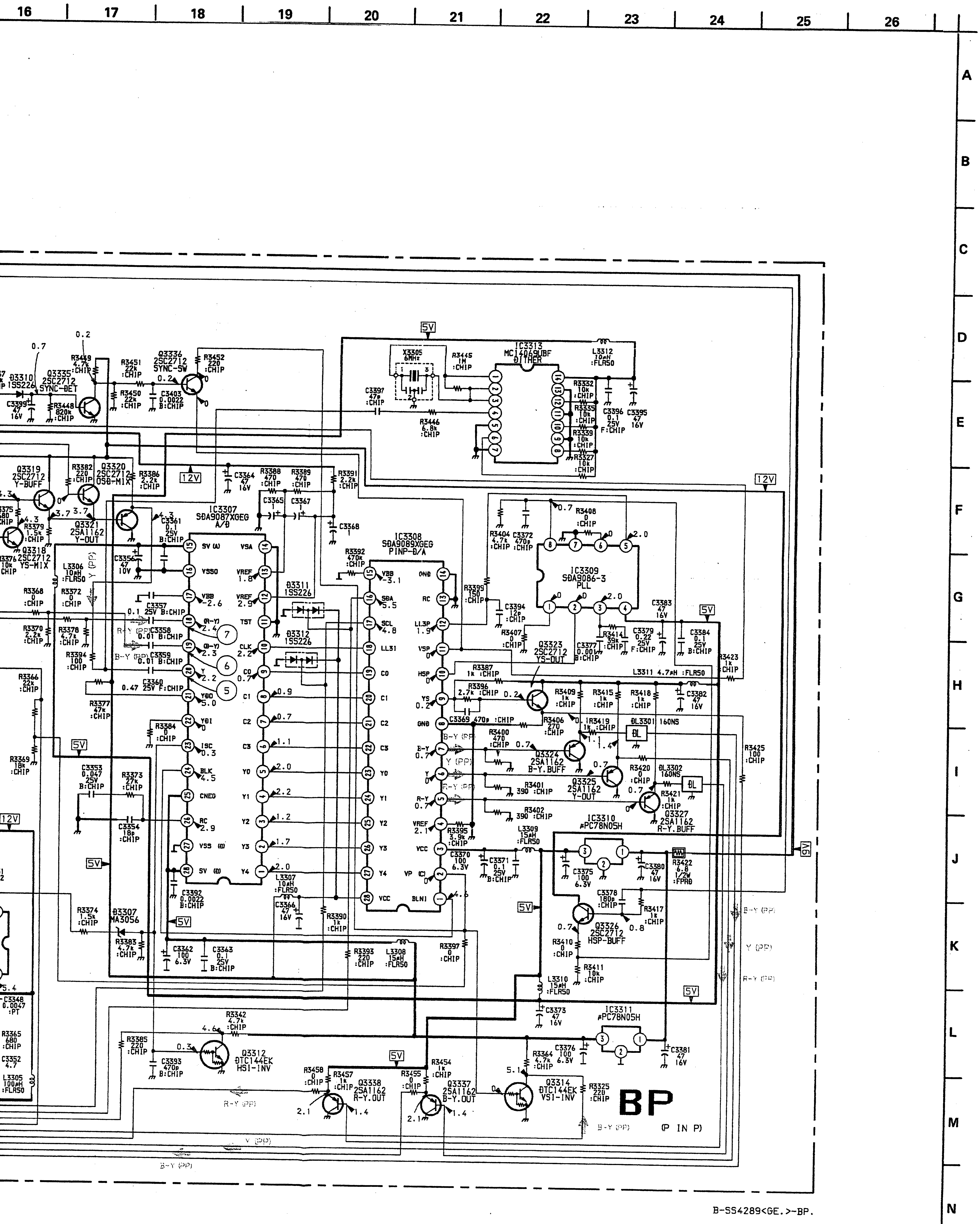

buff
buff
clamp
line memory
shihrt register
line memory
ref
S&H
LPF
buff
clamp
buff
ref
S&H
LPF
3MHz
6MHz
fh
sandc del.
Freq phase det
divider 1:192
VCO
divider 1:2
LPF
ref


1
2
3
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
TO A BOARD
TO CN1128
CN3301
15P
GRY
:BTOB
HSI 1
VSI 2
S-BLK 3
S-OSD IN 4
S-YS IN 5
50/60 6
GND 7
Y 8
R-Y 9
B-Y 10
YS 11
VM-MUTE 12
GND 13
HSP IN 14
VSP IN 15
Y (PP)
R-Y
B-Y
R330
220
:CH
SUB-VOL 1
HUE IN 2
PAL DET 3
S-VIDEO IN 4
GND 5
CLK IN 6
DATA IN 7
GND 8
9V IN 9
12V IN 10
GND 11
④
VIDEO (PP)
CN3302
11P
GRY
:BTOB
TO A BOARD
TO CN1129
R3426
220
:CHIP



2
3
4
5
6
7
8
9
10
11
12
13
TO A BOARD
TO CN1128
CN3301
15P
GRY
:BTOB
HSI
VSI
S-BLK
S-OSD IN
S-YS IN
50/60
GND
Y
R-Y
B-Y
YS
VM-MUTE
GND
HSP IN
VSP IN
SUB-VOL
HUE IN
PAL DET
S-VIDEO IN
GND
CLK IN
DATA IN
GND
9V IN
12V IN
GND
CN3302
11P
GRY
:BTOB
TO A BOARD
TO CN1129
R3426
220
:CHIP
9V
12V
C3305
0.1
25V
F:CHIP
L3314
100μH
:EL0606
JW1
5MM
RV3301
1k
1/10W
(YEL)
R-Y
B-Y
L3303
R3319
470
:CHIP
C3317
27p
CH:CHIP
C3320
330
:CHIP
C3319
120p
PH:CHIP
C3322
330
:CHIP
C3323
27p
CH:CHIP
C3311
470
16V
C3314
0.01
F:CHIP
C3309
0.01
F:CHIP
C3307
0.022
:MPS
C3325 0.1 :MPS
C3327 0.1 :MPS
C3328 220p :CHIP
C3330 180p :CHIP
B-Y (PP)
R-Y (PP)
SECAM REF.
IC3302
TDA4650/V4
SUB-CHROMA
CHROMA IN
VCC
HUE SERVICE
GND
PLL
OSC
NTSC IDENT
PAL SECAM
SCP
NTSC 4.43
NTSC 3.58
SECAM
PAL
B-Y DEEMP
R-Y DEEMP
X3301
7.159MHz
CT3301
30p
C3315
0.33
:MPS
R3316
3.3k
C3312
0.047
:MPS
C3308
0.022
F:CHIP
C3310
1
C3306
1
C3301
47
16V
C3302
0.1
25V
F:CHIP
L3313
100μH
:EL0606
R3301
220
:CHIP
R3306
1.8k
:CHIP
C3321
0.1
:MPS
C3324 0.022 :MPS
C3326 0.022 :MPS
R3322 220 :CHIP
R3329 1M :CHIP
Q3313 DTC124EK
Q3301 DTA114EK NT4.43-SW
R3308 820 :CHIP
R3309 820 :CHIP
Q3302 DTA114EK NT3.58-SW
Q3303 DTA114EK SECAM-SW
Q3304 DTA114EK PAL-SW
R3313 820 :CHIP
R3315 820 :CHIP
X3304 8.867MHz
CT3304 30p
R3321 0 :CHIP
D3301 1SS226
D3302 1SS226
D3303 1SS226
D3304 1SS226
D3305 1SS226
C (PP)
Y (PP)
VIDEO (PP)
R3303 1k :CHIP
R3304 220 :CHIP
R3307 10k :CHIP
R3310 10k :CHIP
IC3301
CXA1315M
D/A
PAL-M
PAL4.43
SUB VOL
SCL
SDA
NT4.43
NT3.58
SAD2
SAD1
SECAM
SAD0
PAL
GND
PAL-N
Q3330 DTC114EK
R3305 10k :CHIP
R3302 10k :CHIP
Q3331 DTC114EK
Q3333 DTC114EK
Q3332 DTC114EK
BF3301
C (PP) PAL/NT
Q3310 2SC2712 C-OUT
R3324 390 :CHIP
R3326 47k :CHIP
R3328 100k :CHIP
C3329 0.01 F:CHIP
Q3311 2SC2712 SECAM-OUT
C (PP) SECAM
R3323 1.5k :CHIP
R3330 47k :CHIP
T3301
BELL
C3331 0.01 F:CHIP
R3331 100 :CHIP
C3334 150p :CHIP
R3445 10k :CHIP
Q3315 2SC2712 VI-CLAMP
C3401 10
R3444 5.6k :CHIP
Q3305 2SC2712 VI-BUFF
R3311 100 :CHIP
R3312 2.2k :CHIP
R3314 1.5k :CHIP
L3301 180μH :FLR50
L3302 180μH :FLR50
C3313 56p :CHIP
C3316 82p :CHIP
C3318 33p :CHIP
Q3309 2SA1162 Y-BUFF
R3320 2.2k :CHIP
R3318 3.3k :CHIP
C3335 0.01 F:CHIP
C3336 0.01 F:CHIP
C3332 0.1 :MPS
C3333 47
R3333 4.7k :CHIP
D3313 MTZJ 4.3B
IC3303
TDA4660V2
D.L
R-Y IN
B-Y IN
R3345 1M :CHIP
R3338 10 :CHIP
R3343 10 :CHIP
C3337 47
C3339 0.1 :MPS
R3334 270 1/8W :CHIP
R3337 270 1/8W :CHIP
D3306 MA3056
R3431 270 :CHIP
C3338 0.1 :MPS
Q3328 2SC2712 B-Y.BUFF
C3400 10 16V
R3430 0 :CHIP
R3435 0 :CHIP
R3436 0 :CHIP
Q3329 2SC2712 R-Y.BUFF
D3308 1SS226
Q3334 DTC114EK S-BLK
C3341 0.047 :PT
IC3304
MC14528BF
H-BLK
R3341 1.2k :CHIP
R3344 1k :CHIP
R3380 1k :CHIP
C3402 120p :CHIP
C3340 0.1 :MPS
C (PP) PAL/NT
C (PP) SECAM
①
②
③
④


9
10
11
12
13
14
15
16
17
18
19
20
IC3303 TDA4660V2 D.L
IC3312 MC14052BF DECODE-AX15
IC3304 MC14528BF H-BLK
IC3306 TDA2595/V9 SUB-SCP
IC3307 SDA9087XGEG A/D
BF3301
T3301 BELL
Q3313 DTC124EK
Q3328 2SC2712 B-Y.BUFF
Q3329 2SC2712 R-Y.BUFF
D3309 1SS226
Q3322 DTC144EK S-PAL/NT
Q3339 DTC144EK M-PAL/NT
D3308 1SS226
D3306 MA3056
D3313 MTZJ 4.3B
D3302 1SS226
D3303 1SS226
D3304 1SS226
D3305 1SS226
Q3334 DTC114EK S-BLK
Q3317 2SA1162 SUB-V.BLK MIX
Q3316 2SC2712 SUB-V.BLK
Q3310 2SC2712 C-OUT
Q3311 2SC2712 SECAM-OUT
Q3315 2SC2712 V1-CLAMP
Q3305 2SC2712 V1-BUFF
Q3309 2SA1162 Y-BUFF
Q3319 2SC2712 Y-BUFF
Q3320 2SC2712 OSD-MIX
Q3321 2SA1162 Y-OUT
Q3318 2SC2712 YS-MIX
Q3335 2SC2712 SYNC-DET
Q3336 2SC2712 SYNC-SW
D3310 1SS226
D3311 1SS226
D3312 1SS226
D3307 MA3056
Q3312 DTC144EK HSI-INV
Q3338 2SA1162 R-Y.OUT
12V
5V
B-Y (PP)
R-Y (PP)
Y (PP)
C (PP) PAL/NT
C (PP) SECAM
S SYNC

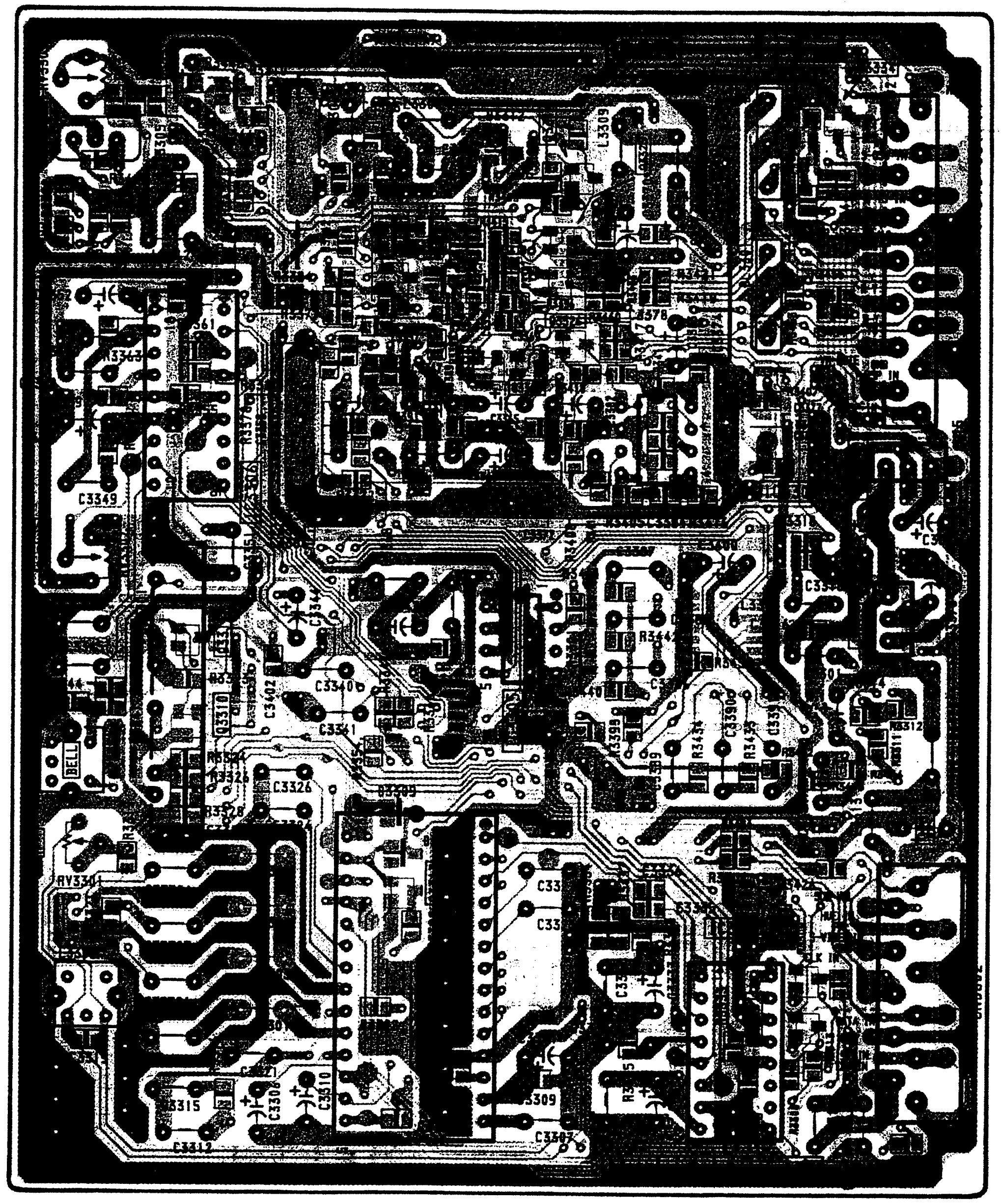

16
17
18
19
20
21
22
23
24
25
26
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
IC3307
SDA9087XGEG
A/D
IC3308
SDA9089XGEG
PINP-D/A
IC3309
SDA9086-3
PLL
IC3313
MC14069UBF
DITHER
IC3310
μPC78N05H
IC3311
μPC78N05H
X3305
6MHz
Q3335
2SC2712
SYNC-DET
Q3336
2SC2712
SYNC-SW
Q3319
2SC2712
Y-BUFF
Q3320
2SC2712
OSD-MIX
Q3321
2SA1162
Y-OUT
Q3318
2SC2712
YS-MIX
Q3323
2SC2712
YS-OUT
Q3324
2SA1162
B-Y.BUFF
Q3325
2SA1162
Y-OUT
Q3327
2SA1162
R-Y.BUFF
Q3326
2SC2712
HSP-BUFF
Q3312
DTC144EK
HS1-INV
Q3338
2SA1162
R-Y.OUT
Q3337
2SA1162
B-Y.OUT
Q3314
DTC144EK
VS1-INV
D3310
1SS226
D3311
1SS226
D3312
1SS226
D3307
MA3056
DL3301 160NS
DL3302 160NS
L3306 10μH :FLR50
L3307 10μH :FLR50
L3308 15μH :FLR50
L3309 15μH :FLR50
L3310 15μH :FLR50
L3311 4.7μH :FLR50
L3312 10μH :FLR50
L3305 100μH :FLR50
5V
12V
9V
R-Y (PP)
B-Y (PP)
Y (PP)
BP
(P IN P)

B-SS4289<GE.>-BP.

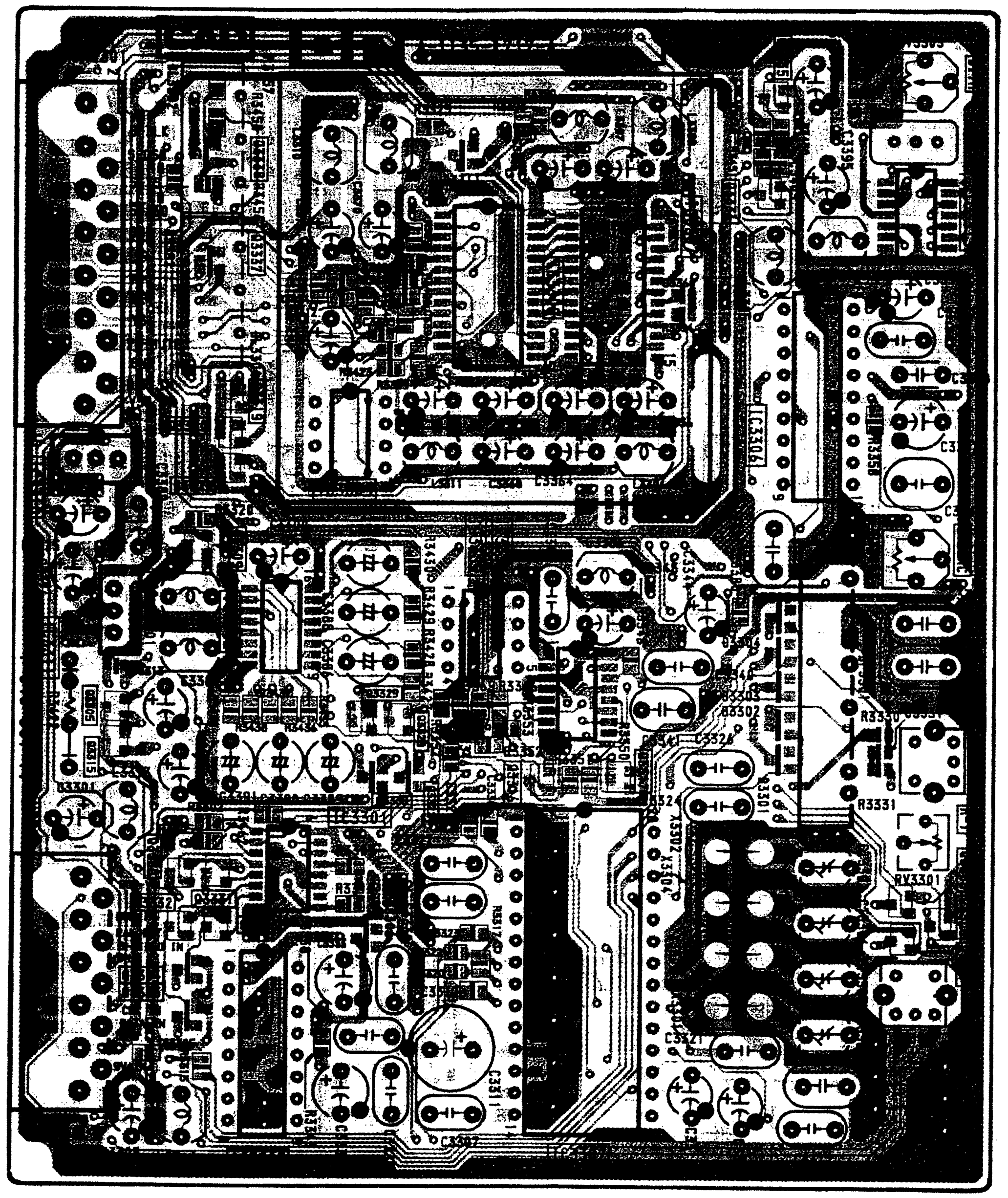
BP [P IN P]

PRINTED WIRING BOARD

– BP Board (Conductor Side) –



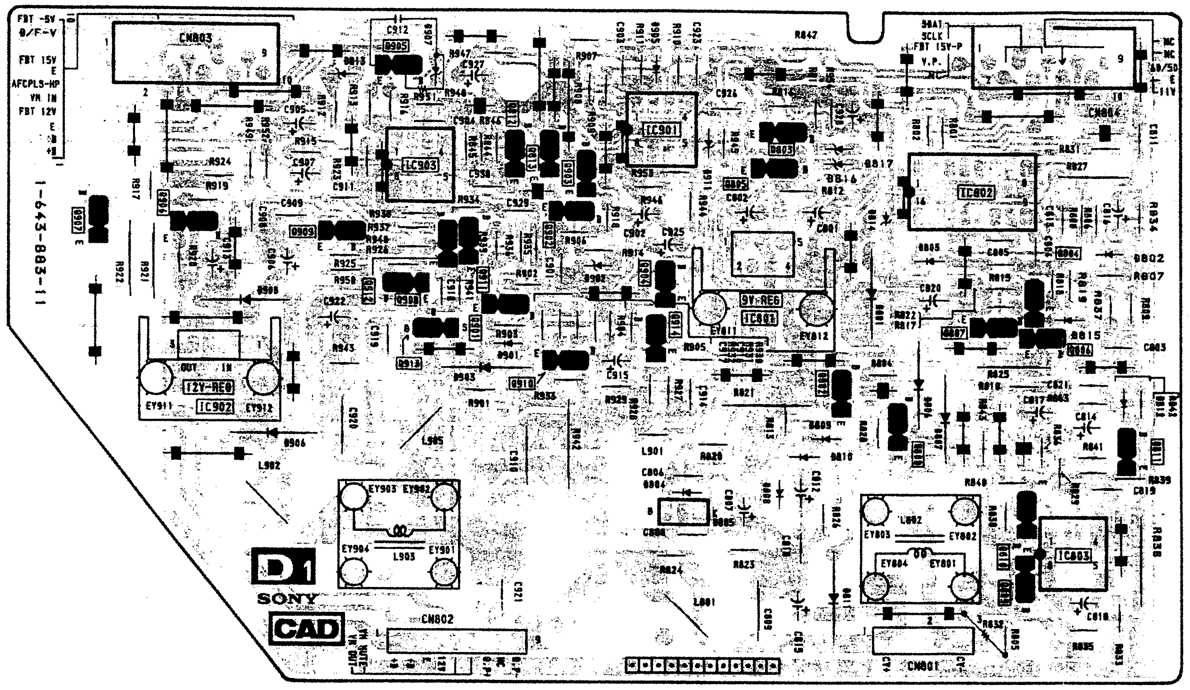
– BP Board (Component Side) –



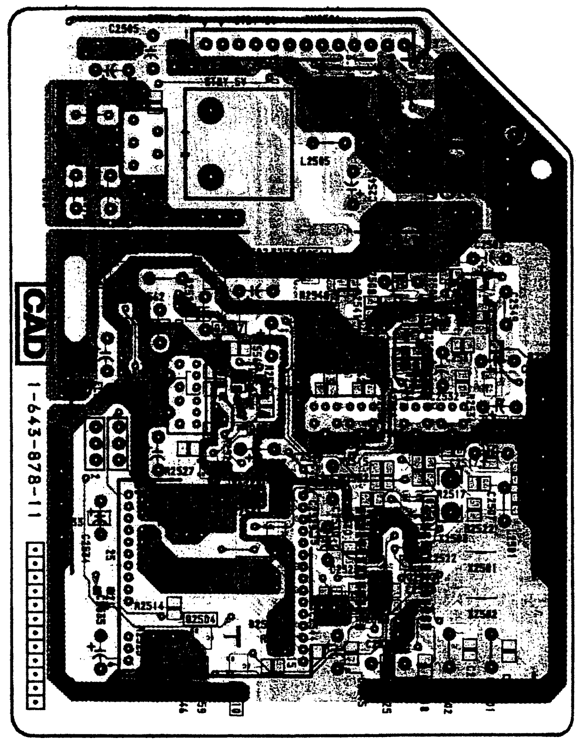
D1 [DYNAMIC CONVERGENCE QUADRUPOLE] **Vc** [V PIN OUT] **B1** [DIGITAL COMB FILTER] **VM** [VM OUT]

PRINTED WIRING BOARDS

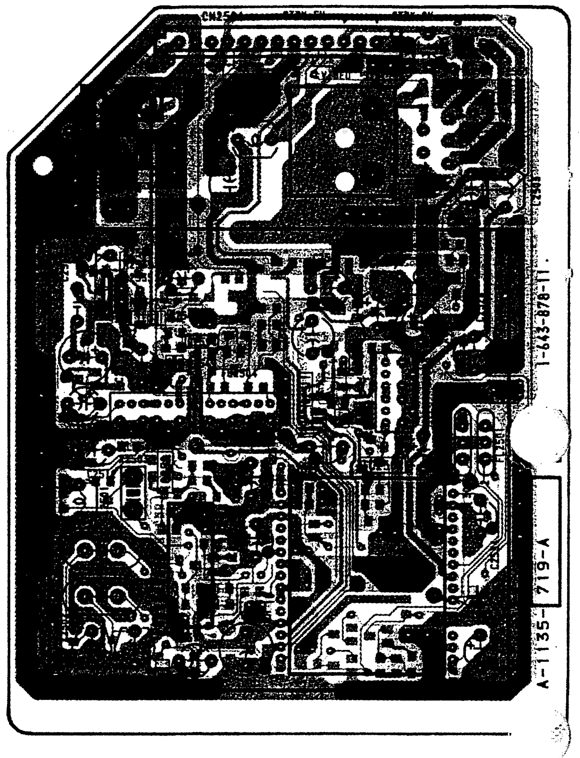
– D1 Board –


1-643-883-11
CN803
CN804
IC901
IC903
IC802
IC803
IC902
IC801
CN802
CN801
D1
SONY
CAD

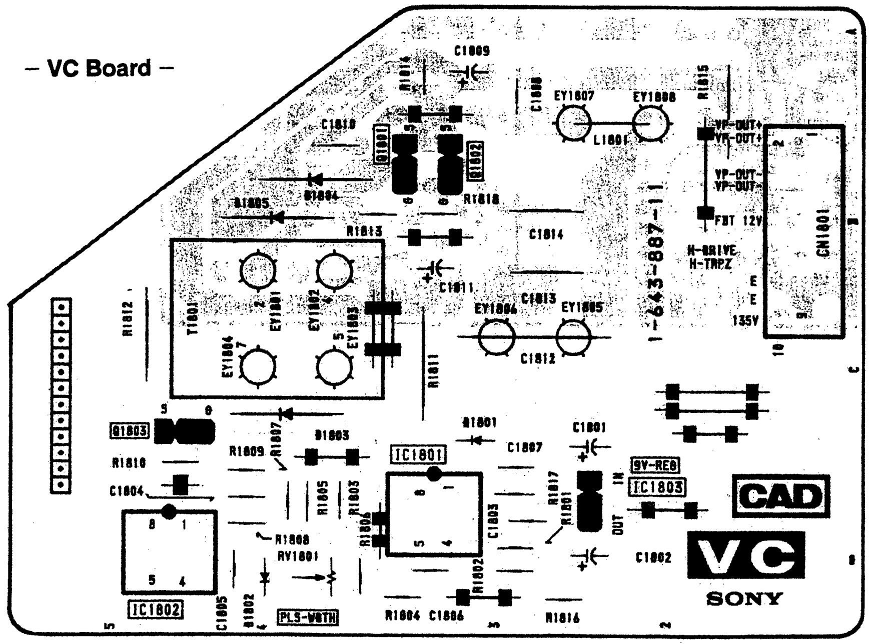
– B1 Board (Conductor Side) –


CAD
1-643-878-11
C2505
L2505

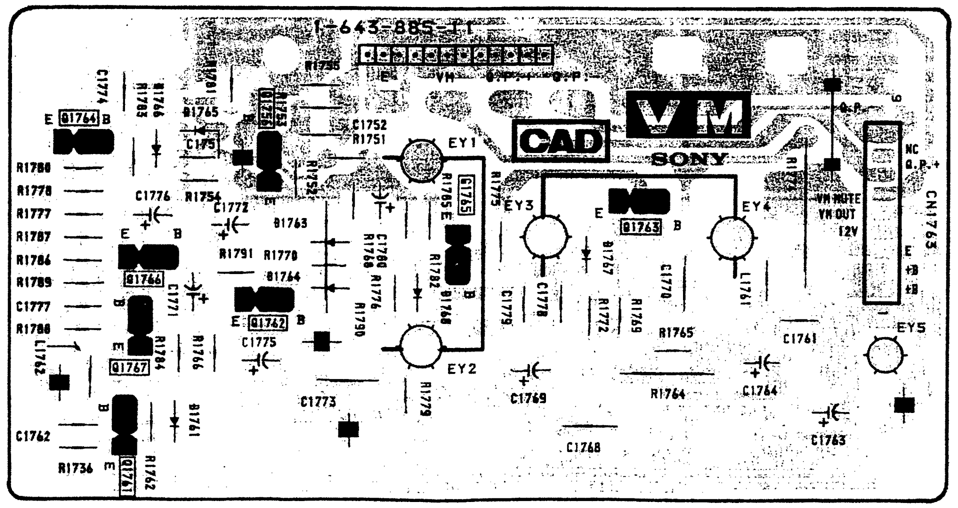
– B1 Board (Component Side) –


1-643-878-11
A-1135-719-A

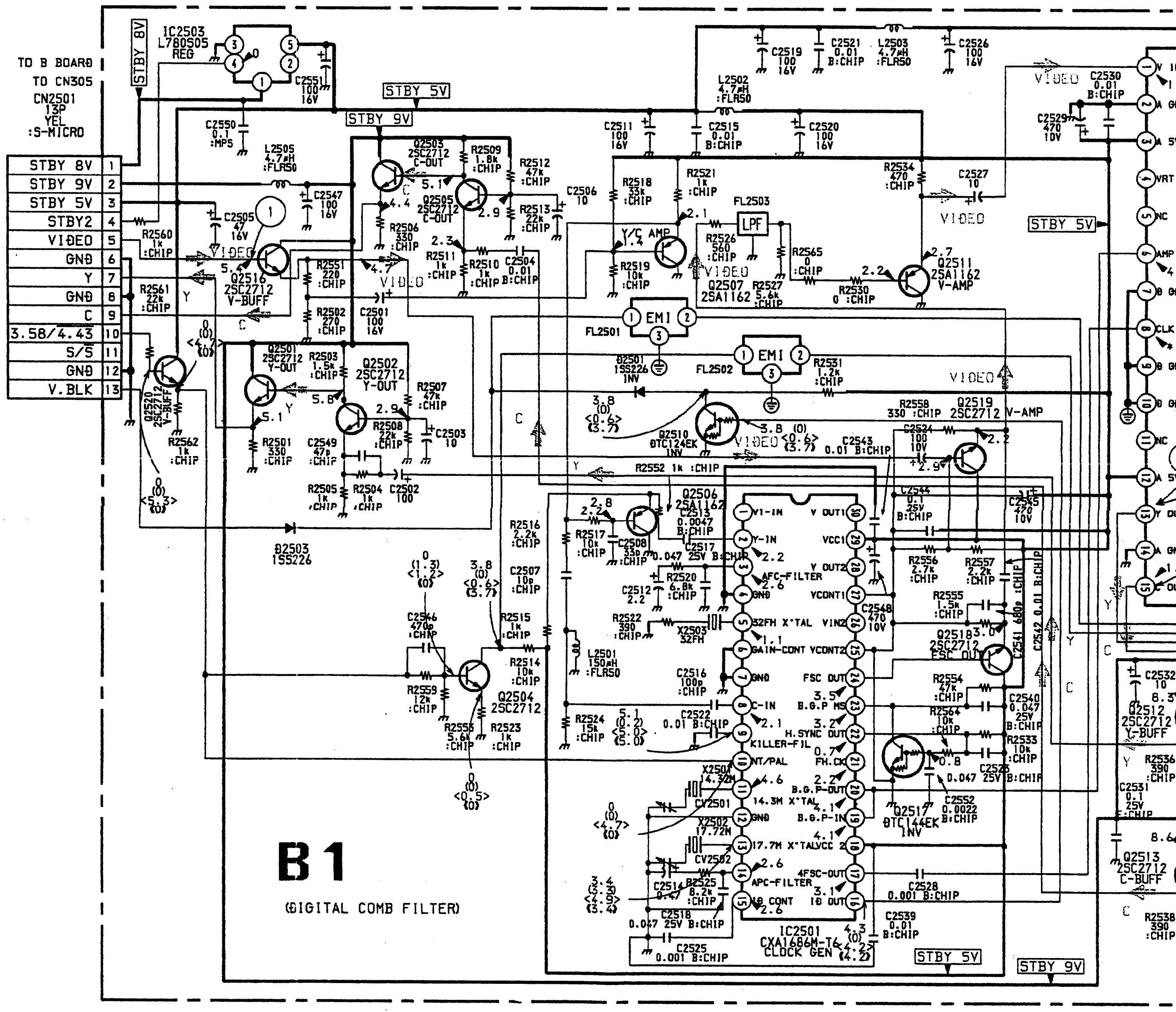
– VC Board –


1-643-887-11
CN1801
IC1801
IC1802
IC1803
T1801
L1801
RV1801
FBT 12V
H-DRIVE
H-TRPZ
135V
CAD
VC
SONY

– VM Board –

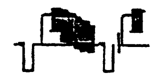
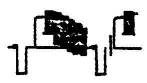
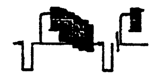
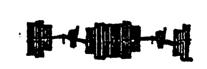

1-643-885-11
CN1763
EY1
EY2
EY3
EY4
EY5
VM MUTE
VM OUT
12V
CAD
VM
SONY

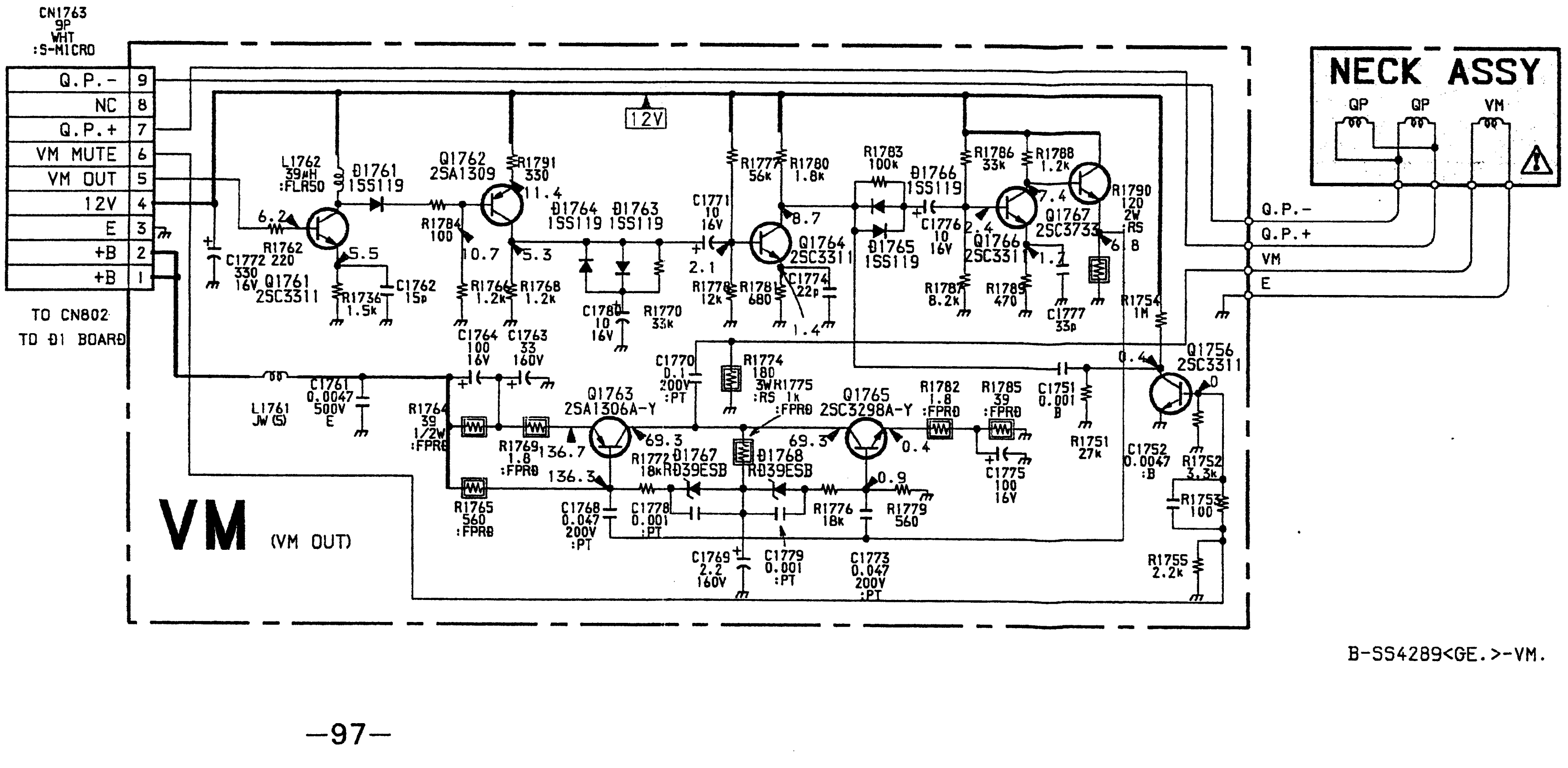
(8) SCHEMATIC DIAGRAMS OF B1, VC, VM AND D1 BOARDS



1 2 3 4 5 6 7 8 9 10 11
A B C D E F G H
TO B BOARD
TO CN305
CN2501
13P
YEL
:S-MICRO
STBY 8V 1
STBY 9V 2
STBY 5V 3
STBY2 4
VIDEO 5
GND 6
Y 7
GND 8
C 9
3.58/4.43 10
S/S 11
GND 12
V.BLK 13
STBY 8V
IC2503 L780S05 REG
STBY 5V
STBY 9V
Q2516 2SC2712 V-BUFF
Q2501 2SC2712 Y-OUT
Q2502 2SC2712 Y-OUT
Q2503 2SC2712 C-OUT
Q2505 2SC2712 C-OUT
Q2507 2SA1162
Y/C AMP
LPF
FL2503
Q2511 2SA1162 V-AMP
EMI
FL2501
FL2502
D2501 1SS226
D2503 1SS226
Q2510 DTC124EK INV
Q2519 2SC2712 V-AMP
Q2506 2SA1162
Q2504 2SC2712
Q2518 2SC2712 FSC OUT
Q2517 DTC144EK INV
Q2520 2SC2712 V-BUFF
IC2501 CXA1686M-T6 CLOCK GEN
X2503 32FH
X2504 14.3M
X2502 17.72M
CV2501
CV2502
VIDEO
Q2512 2SC2712 Y-BUFF
Q2513 2SC2712 C-BUFF
B1
(DIGITAL COMB FILTER)

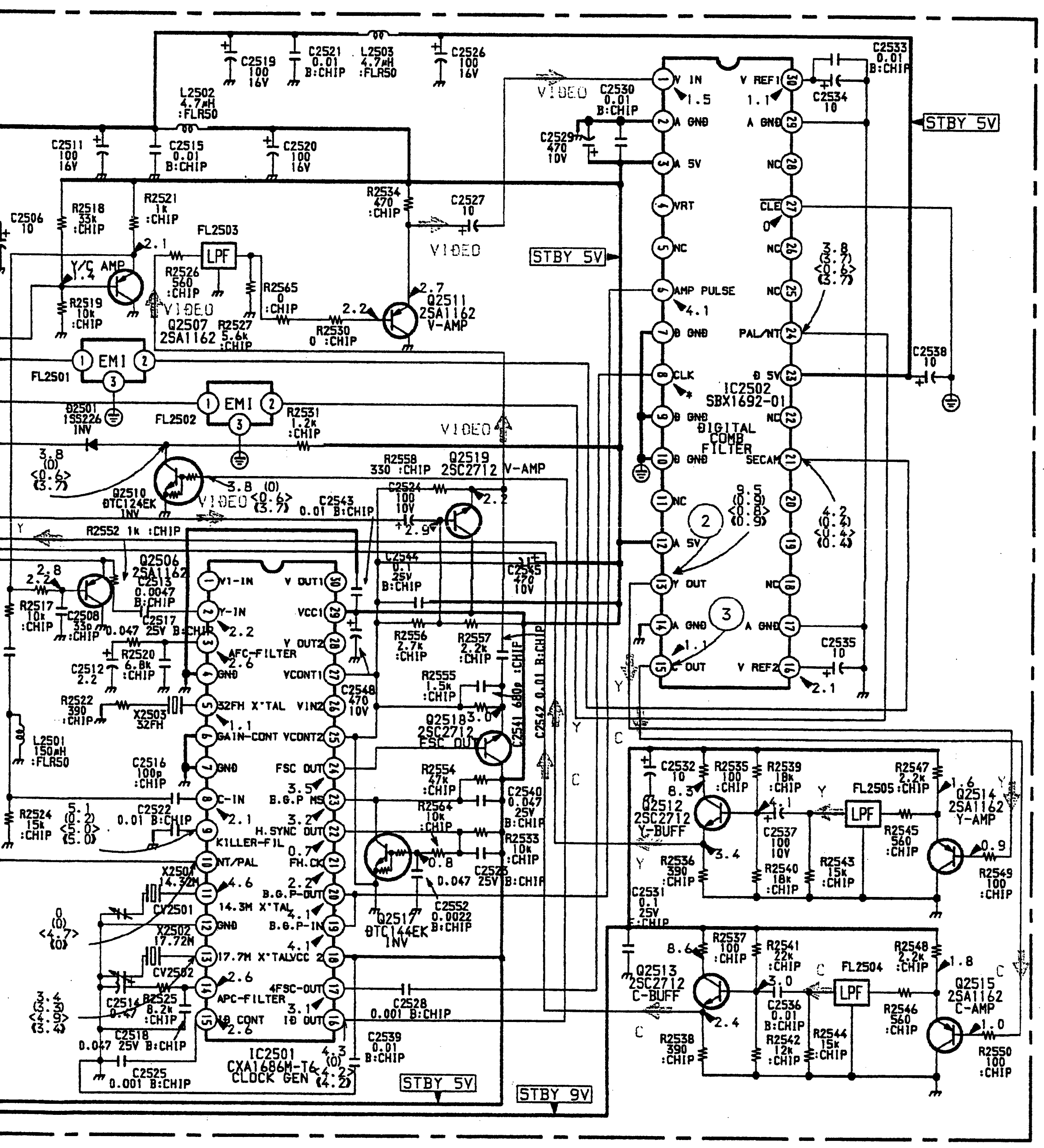
B1 BOARD WAVEFORMS

① PAL NTSC3.58 NTSC4.43  2.2 Vp-p (H)	① SECAM  2.5Vp-p (H)	② PAL 1.7Vp-
② SECAM  2.2 Vp-p (H)	③ PAL NTSC3.58 NTSC4.43  1.2Vp-p (H)	③ SECA 0.7Vp-p

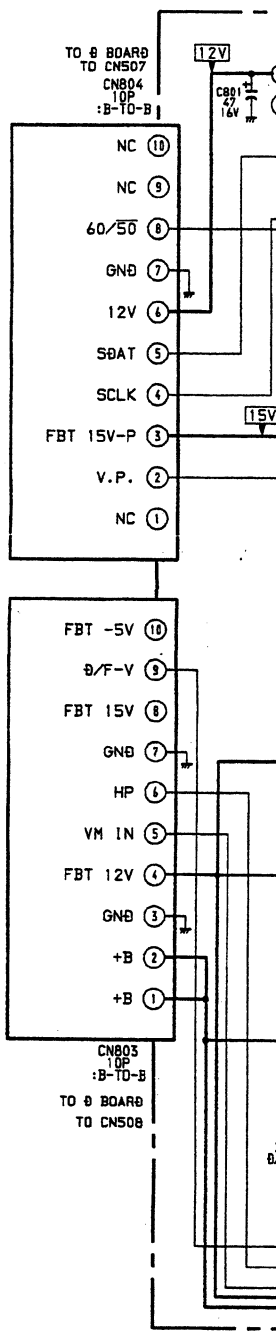


L M N O P
CN1763
9P
WHT
:S-MICRO
Q.P.- 9
NC 8
Q.P.+ 7
VM MUTE 6
VM OUT 5
12V 4
E 3
+B 2
+B 1
TO CN802
TO D1 BOARD
12V
Q1761 2SC3311
Q1762 2SA1309
Q1763 2SA1306A-Y
Q1764 2SC3311
Q1765 2SC3298A-Y
Q1766 2SC3311
Q1767 2SC3733
Q1756 2SC3311
D1761 1SS119
D1763 1SS119
D1764 1SS119
D1765 1SS119
D1766 1SS119
D1767 RD39ESB
D1768 RD39ESB
L1762 39µH :FLR50
L1761 JW(5)
NECK ASSY
QP
QP
VM
Q.P.-
Q.P.+
VM
E
VM (VM OUT)

B-SS4289<GE.>-VM.


IC2502
SBX1692-01
DIGITAL
COMB
FILTER
IC2501
CXA1686M-T6
CLOCK GEN
Q2511
2SA1162
V-AMP
Q2507
2SA1162
Q2519
2SC2712
V-AMP
Q2518
2SC2712
ESC OUT
Q2512
2SC2712
Y-BUFF
Q2514
2SA1162
Y-AMP
Q2513
2SC2712
C-BUFF
Q2515
2SA1162
C-AMP
Q2506
2SA1162
Q2510
DTC124EK
INV
Q2517
DTC144EK
INV
D2501
1SS226
INV
FL2501
FL2502
FL2503
FL2504
FL2505
EMI
LPF
VIDEO
STBY 5V
STBY 9V
Y/C AMP

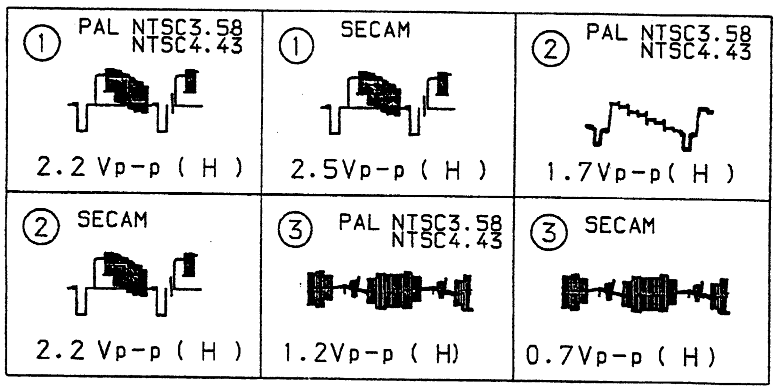
B-SS4289<GE.>-B1.


TO B BOARD
TO CN507
CN804
10P
:B-TO-B
12V
NC ⑩
NC ⑨
60/50 ⑧
GND ⑦
12V ⑥
SDAT ⑤
SCLK ④
FBT 15V-P ③
V.P. ②
NC ①
15V
FBT -5V ⑩
D/F-V ⑨
FBT 15V ⑧
GND ⑦
HP ⑥
VM IN ⑤
FBT 12V ④
GND ③
+B ②
+B ①
CN803
10P
:B-TO-B
TO B BOARD
TO CN508

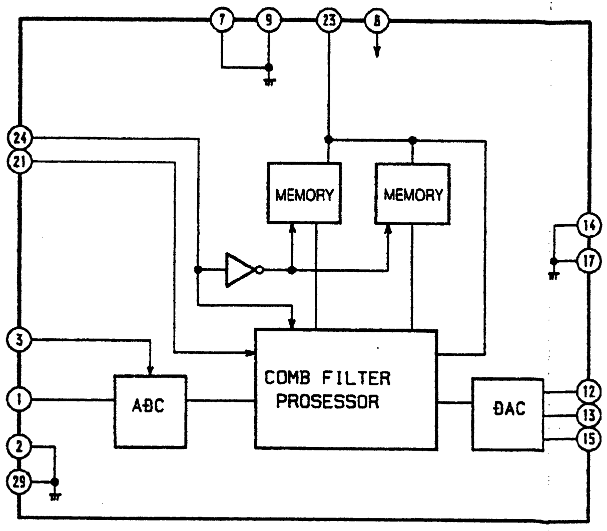
B1 BOARD *MARK LIST

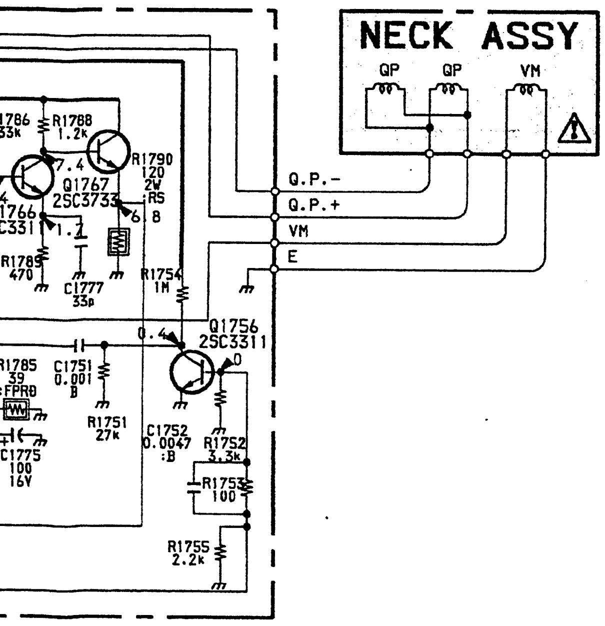
	34inch only	29inch only
*1 C903	0.022 :MPS	0.22 :MPS
*2 C910	0.24 200V :MPP	0.1 200V :MPP
*3 C911	1 :MPS	0.1 :MPS
*4 C912	—	0.0022 :MPS
*5 C914	0.033 100V :PT	0.01 100V :PT
*6 C916	0.0047 :PT	JW (5)
*7 C917	0.0047 :PT	0.001 :PT
*8 C920	0.022 400V :PP	0.01 630V :PP
*9 C921	1 :MPS	JW (5)
*10 C926	0.068 :MPS	0.1 :MPS
*11 C927	—	0.33 :MPS
*12 L902	7.5mH	3.3mH
*13 L903	3.4mH	—
*14 R805	330	—
*15 R817	3.9K	2.7K
*16 R825	47 1W :RS	10 1W :RS
*17 R832	—	150 1W :RS
*18 R908	33K	47K
*19 R910	39K	15K
*20 R915	6.8K	4.7K
*21 R919	18K	47K
*22 R922	68 1W :RS	1.5K 1W :RS
*23 R927	1.5K	10K
*24 R932	15K	—
*25 R934	100K	68K
*26 R944	22K	18K
*27 R947	680 :FPRD	1.5K :FPRD
*28 R948	68K	33K
*29 R951	—	22K

B1 BOARD WAVEFORMS

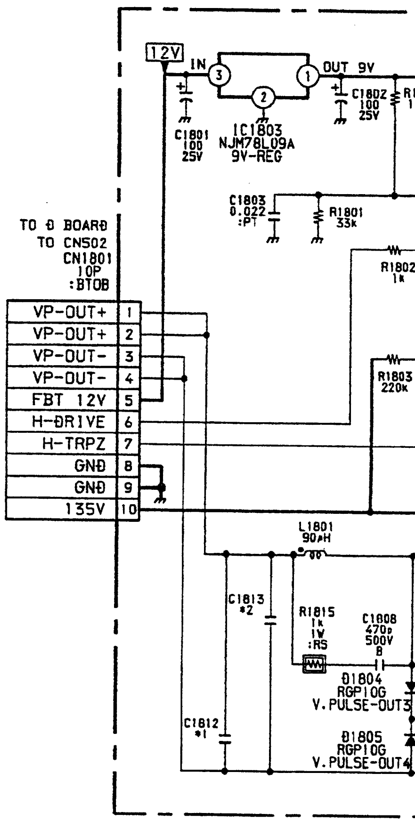


B1 Board IC2502 SBX1692-01


7
9
23
8
24
21
MEMORY
MEMORY
16
17
3
1
2
29
ABC
COMB FILTER
PROCESSOR
DAC
12
13
15

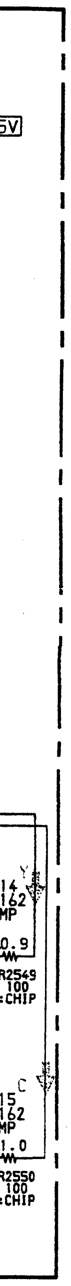

NECK ASSY
QP
QP
VM
Q.P.-
Q.P.+
VM
E
Q1767
2SC3733
Q1756
2SC3311

B-SS4289<GE.>-VM.

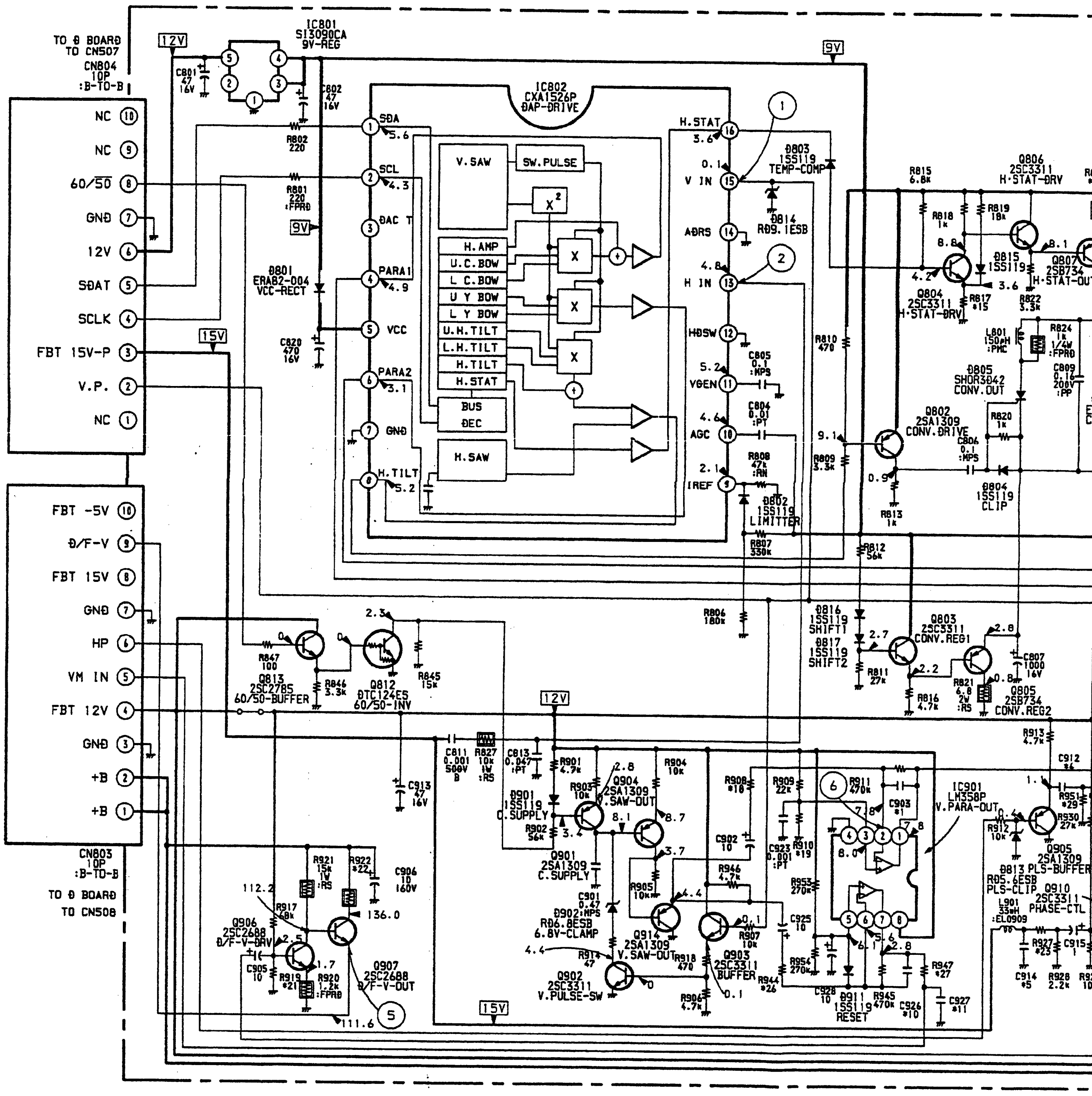

12V
IN
OUT 9V
IC1803
NJM78L09A
9V-REG
TO D BOARD
TO CN502
CN1801
10P
:BTOB
VP-OUT+ 1
VP-OUT+ 2
VP-OUT- 3
VP-OUT- 4
FBT 12V 5
H-DRIVE 6
H-TRPZ 7
GND 8
GND 9
135V 10
L1801
90μH
C1812
*1
C1813
*2
D1804
RGP10G
V.PULSE-OUT3
D1805
RGP10G
V.PULSE-OUT4

VC BOARD *MARK LIST

	34inch only
*1 C1812	0.24 200V
*2 C1813	—
*3 R1806	8.2K
*4 R1816	47K


5V
0.9
R2549 100 :CHIP
R2550 100 :CHIP
1.0

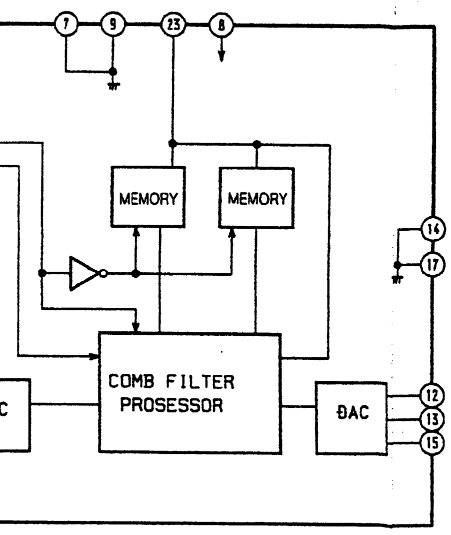
-B1.

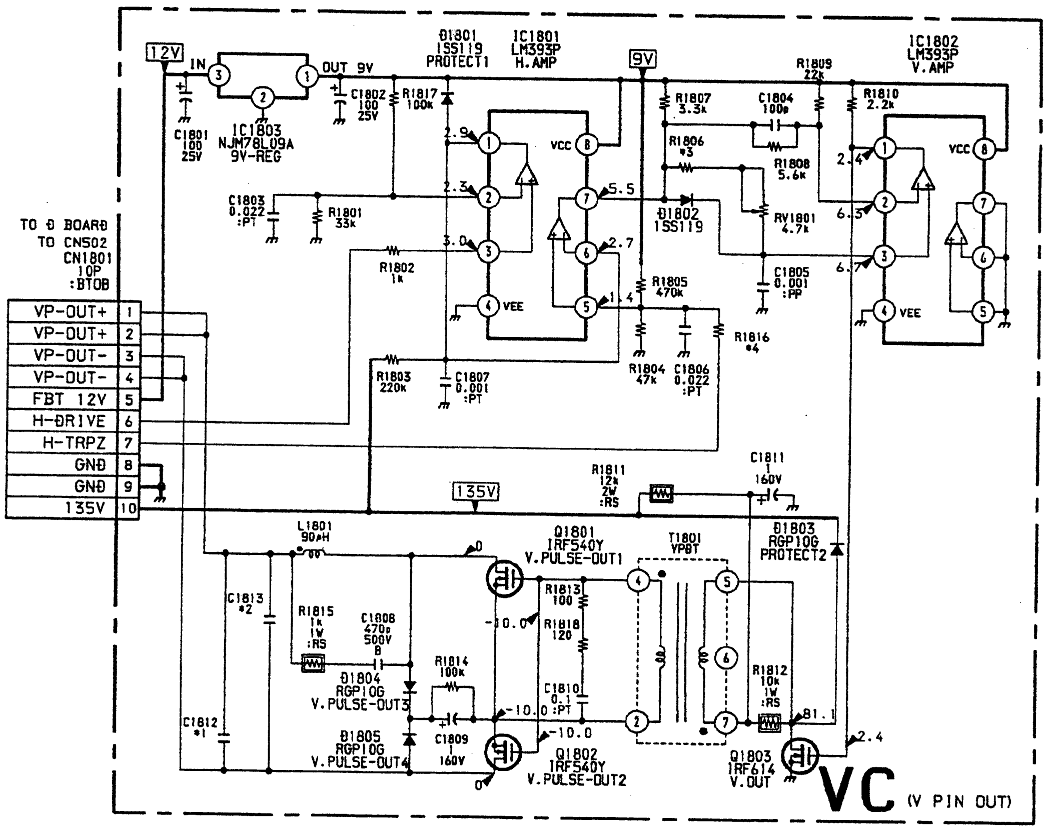

TO D BOARD TO CN507
CN804 10P :B-TO-B
NC 10
NC 9
60/50 8
GND 7
12V 6
SDAT 5
SCLK 4
FBT 15V-P 3
V.P. 2
NC 1
IC801 SI3090CA 9V-REG
IC802 CXA1526P DAP-DRIVE
V.SAW
SW.PULSE
H.AMP
U.C.BOW
L.C.BOW
U Y BOW
L Y BOW
U.H.TILT
L.H.TILT
H.TILT
H.STAT
BUS DEC
H.SAW
SDA
SCL
DAC T
PARA1
VCC
PARA2
GND
H.TILT
H.STAT
V IN
ABRS
H IN
HDSW
VGEN
AGC
IREF
D801 ERA82-004 VCC-RECT
D803 1SS119 TEMP-COMP
D814 RD9.1ESB
D802 1SS119 LIMITTER
Q806 2SC3311 H-STAT-DRV
Q804 2SC3311 H-STAT-DRV
Q807 2SB734 H-STAT-OUT
Q805 SHOR3042 CONV.OUT
Q802 2SA1309 CONV.DRIVE
D804 1SS119 CLIP
FBT -5V 10
D/F-V 9
FBT 15V 8
GND 7
HP 6
VM IN 5
FBT 12V 4
GND 3
+B 2
+B 1
CN803 10P :B-TO-B
TO D BOARD TO CN508
Q813 2SC2785 60/50-BUFFER
Q812 DTC124ES 60/50-INV
D816 1SS119 SHIFT1
D817 1SS119 SHIFT2
Q803 2SC3311 CONV.REG1
Q805 2SB734 CONV.REG2
D901 1SS119 C.SUPPLY
Q901 2SA1309 C.SUPPLY
Q904 2SA1309 V.SAW-OUT
D902 RD6.8ESB 6.8V-CLAMP
Q914 2SA1309 V.SAW-OUT
Q902 2SC3311 V.PULSE-SW
Q903 2SC3311 BUFFER
D911 1SS119 RESET
IC901 LM358P V.PARA-OUT
Q905 2SA1309
D913 RD5.6ESB PLS-CLIP
Q910 2SC3311 PHASE-CTL
Q906 2SC2688 D/F-V-DRV
Q907 2SC2688 D/F-V-OUT
12V
9V
15V

D1 BOARD *MARK LIST

	34inch only	29inch only
*1 C903	0.022 :MPS	0.22 :MPS
*2 C910	0.24 200V :MPP	0.1 200V :MPP
*3 C911	1 :MPS	0.1 :MPS
*4 C912	————	0.0022 :MPS
*5 C914	0.033 100V :PT	0.01 100V :PT
*6 C916	0.0047 :PT	JW (5)
*7 C917	0.0047 :PT	0.001 :PT
*8 C920	0.022 400V :PP	0.01 630V :PP
*9 C921	1 :MPS	JW (5)
*10 C926	0.068 :MPS	0.1 :MPS
*11 C927	————	0.33 :MPS
*12 L902	7.5mH	3.3mH
*13 L903	3.4mH	————
*14 R805	330	————
*15 R817	3.9K	2.7K
*16 R825	47 1W :RS	10 1W :RS
*17 R832	————	150 1W :RS
*18 R908	33K	47K
*19 R910	39K	15K
*20 R915	6.8K	4.7K
*21 R919	18K	47K
*22 R922	68 1W :RS	1.5K 1W :RS
*23 R927	1.5K	10K
*24 R932	15K	————
*25 R934	100K	68K
*26 R944	22K	18K
*27 R947	680 :FPRD	1.5K :FPRD
*28 R948	68K	33K
*29 R951	————	22K

C2502 SBX1692-01


7
9
23
8
MEMORY
MEMORY
14
17
COMB FILTER PROSESSOR
DAC
12
13
15

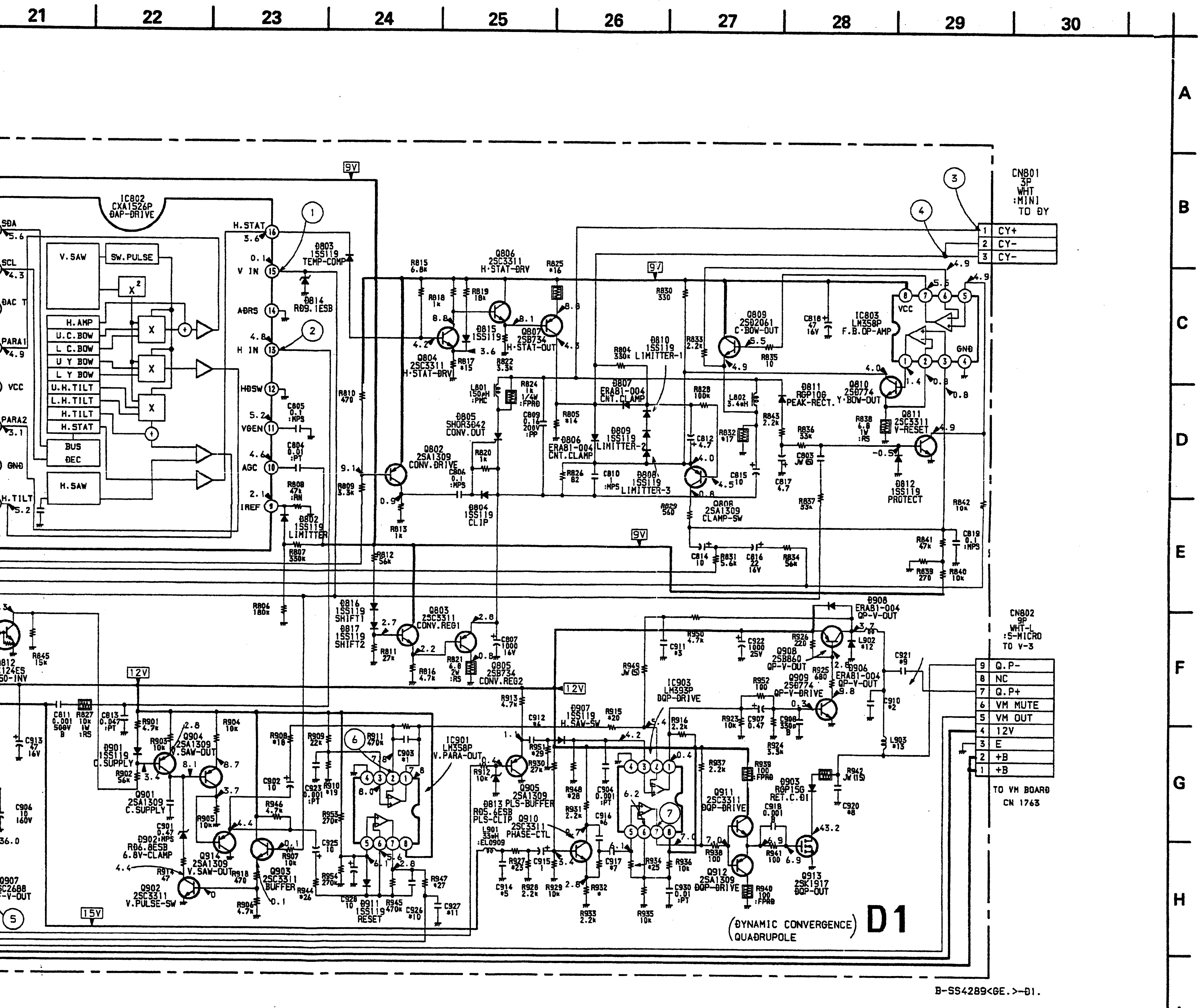

12V
IN
OUT 9V
IC1803 NJM78L09A 9V-REG
D1801 1SS119 PROTECT1
IC1801 LM393P H.AMP
IC1802 LM393P V.AMP
9V
VCC
VEE
D1802 1SS119
RV1801 4.7k
TO D BOARD TO CN502 CN1801 10P :BTOB
VP-OUT+ 1
VP-OUT+ 2
VP-OUT- 3
VP-OUT- 4
FBT 12V 5
H-DRIVE 6
H-TRPZ 7
GND 8
GND 9
135V 10
135V
L1801 90µH
D1804 RGP10G V.PULSE-OUT3
D1805 RGP10G V.PULSE-OUT4
Q1801 IRF540Y V.PULSE-OUT1
Q1802 IRF540Y V.PULSE-OUT2
T1801 VPBT
D1803 RGP10G PROTECT2
Q1803 IRF614 V.OUT

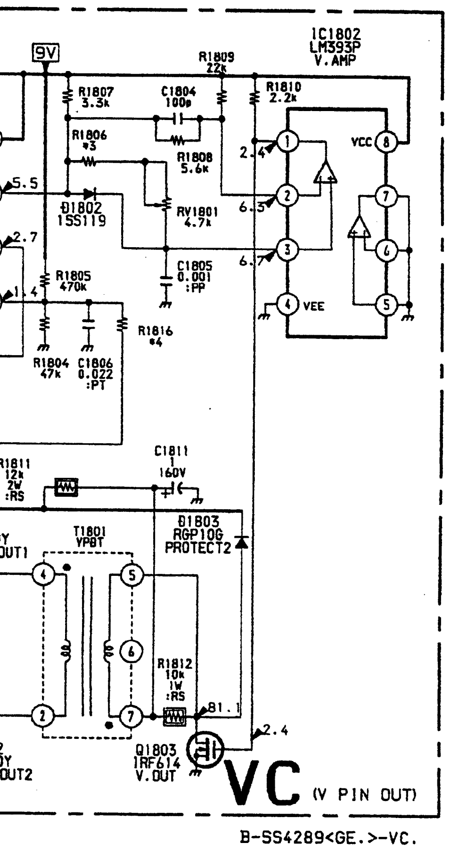
VC (V PIN OUT)

B-SS4289<GE.>-VC.

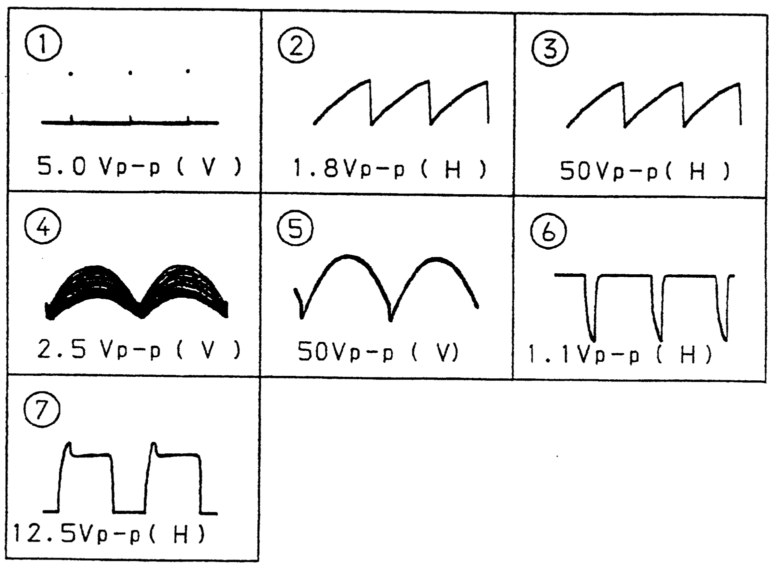
VC BOARD *MARK LIST

	34inch only	29inch only
*1 C1812	0.24 200V	0.16 200V
*2 C1813	————	0.047 200V
*3 R1806	8.2K	6.8K
*4 R1816	47K	27K


21
22
23
24
25
26
27
28
29
30
A
B
C
D
E
F
G
H
IC802
CXA1526P
DAP-DRIVE
V.SAW
SW.PULSE
H.AMP
U.C.BOW
L C.BOW
U Y BOW
L Y BOW
U.H.TILT
L.H.TILT
H.TILT
H.STAT
BUS
DEC
H.SAW
H.STAT
V IN
ABRS
H IN
HBSW
VBEN
AGC
IREF
D803
1SS119
TEMP-COMP
D814
RD9.1ESB
IC803
LM358P
F.B.OP-AMP
Q806
2SC3311
H-STAT-DRV
Q807
2SB734
H-STAT-OUT
Q804
2SC3311
H-STAT-DRV
Q805
SHOR3042
CONV.OUT
Q802
2SA1309
CONV.DRIVE
Q809
2SD2061
C-BOW-OUT
Q810
2SB774
Y-BOW-OUT
Q811
2SC3311
V-RESET
D811
RGP10G
PEAK-RECT.
D810
1SS119
LIMITTER-1
D809
1SS119
LIMITTER-2
D808
1SS119
LIMITTER-3
D807
ERA81-004
CNT.CLAMP
D806
ERA81-004
CNT.CLAMP
Q808
2SA1309
CLAMP-SW
D812
1SS119
PROTECT
D804
1SS119
CLIP
D802
1SS119
LIMITTER
CN801
3P
WHT
:MINI
TO DY
1 CY+
2 CY-
3 CY-
Q803
2SC3311
CONV.REG1
Q805
2SB734
CONV.REG2
D816
1SS119
SHIFT1
D817
1SS119
SHIFT2
IC903
LM393P
DQP-DRIVE
Q908
2SB860
QP-V-OUT
Q909
2SB774
QP-V-DRIVE
D908
ERA81-004
QP-V-OUT
D906
ERA81-004
QP-V-OUT
CN802
9P
WHT-L
:S-MICRO
TO V-3
9 Q.P-
8 NC
7 Q.P+
6 VM MUTE
5 VM OUT
4 12V
3 E
2 +B
1 +B
TO VM BOARD
CN 1763
IC901
LM358P
V.PARA-OUT
Q904
2SA1309
SAW-OUT
Q901
2SA1309
C.SUPPLY
D901
1SS119
C.SUPPLY
Q914
2SA1309
V.SAW-OUT
Q903
2SC3311
BUFFER
Q902
2SC3311
V.PULSE-SW
D902
RD6.8ESB
6.8V-CLAMP
D911
1SS119
RESET
Q905
2SA1309
PLS-BUFFER
D913
RD5.6ESB
PLS-CLIP
Q910
2SC3311
PHASE-CTL
D907
1SS119
H.SAW-SW
Q911
2SC3311
DQP-DRIVE
Q912
2SA1309
DQP-DRIVE
D903
RGP15G
RET.C.81
Q913
2SK1917
DQP-OUT
9V
12V
15V
(DYNAMIC CONVERGENCE QUADRUPOLE) D1
B-SS4289<GE.>-D1.

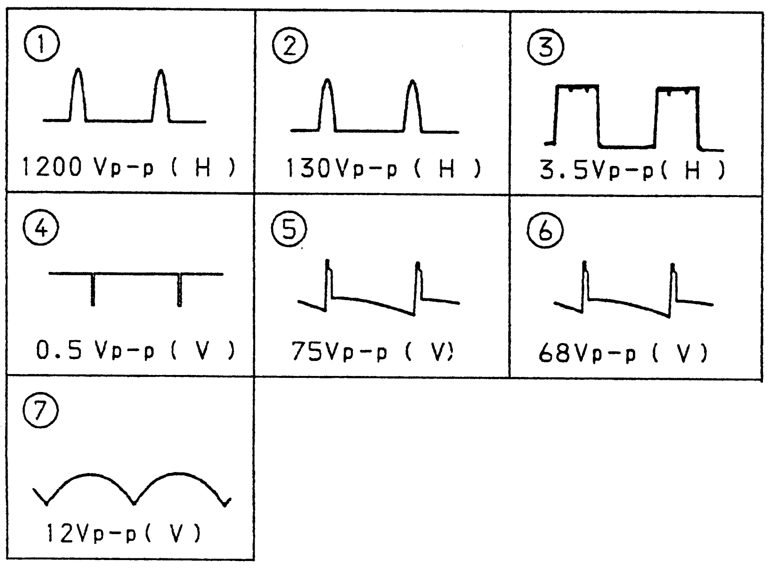

IC1802
LM393P
V.AMP
9V
R1809
22k
R1810
2.2k
R1807
3.3k
C1804
100p
R1806
R1808
5.6k
D1802
1SS119
RV1801
4.7k
C1805
0.001
R1805
470k
R1804
47k
C1806
0.022
R1816
R1811
12k
2W
C1811
1
160V
T1801
YPBT
D1803
RGP10G
PROTECT2
R1812
10k
1W
Q1803
IRF614
V.OUT
VCC
VEE
VC (V PIN OUT)
B-SS4289<GE.>-VC.

D1 BOARD WAVEFORMS

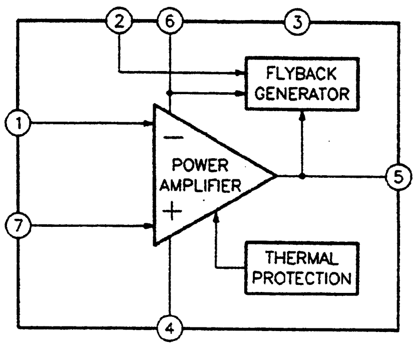

①
5.0 Vp-p (V)
②
1.8Vp-p (H)
③
50Vp-p(H)
④
2.5 Vp-p (V)
⑤
50Vp-p (V)
⑥
1.1Vp-p (H)
⑦
12.5Vp-p(H)

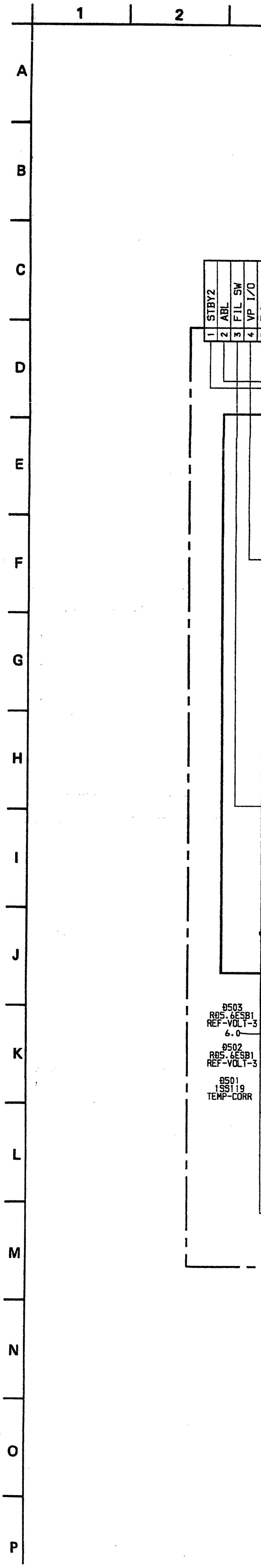
(9) SCHEMATIC DIAGRAM OF D BOARD

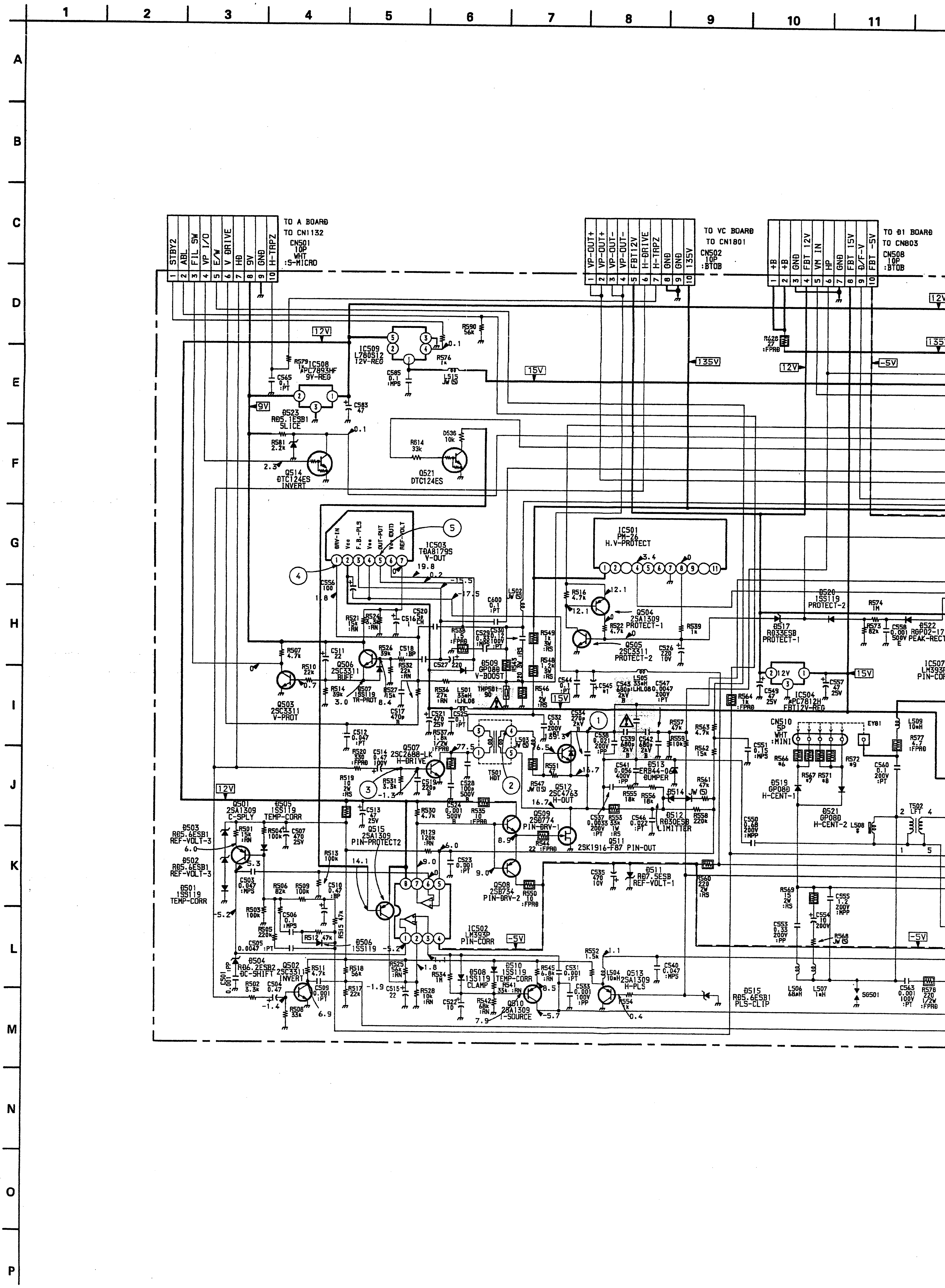
D BOARD WAVEFORMS

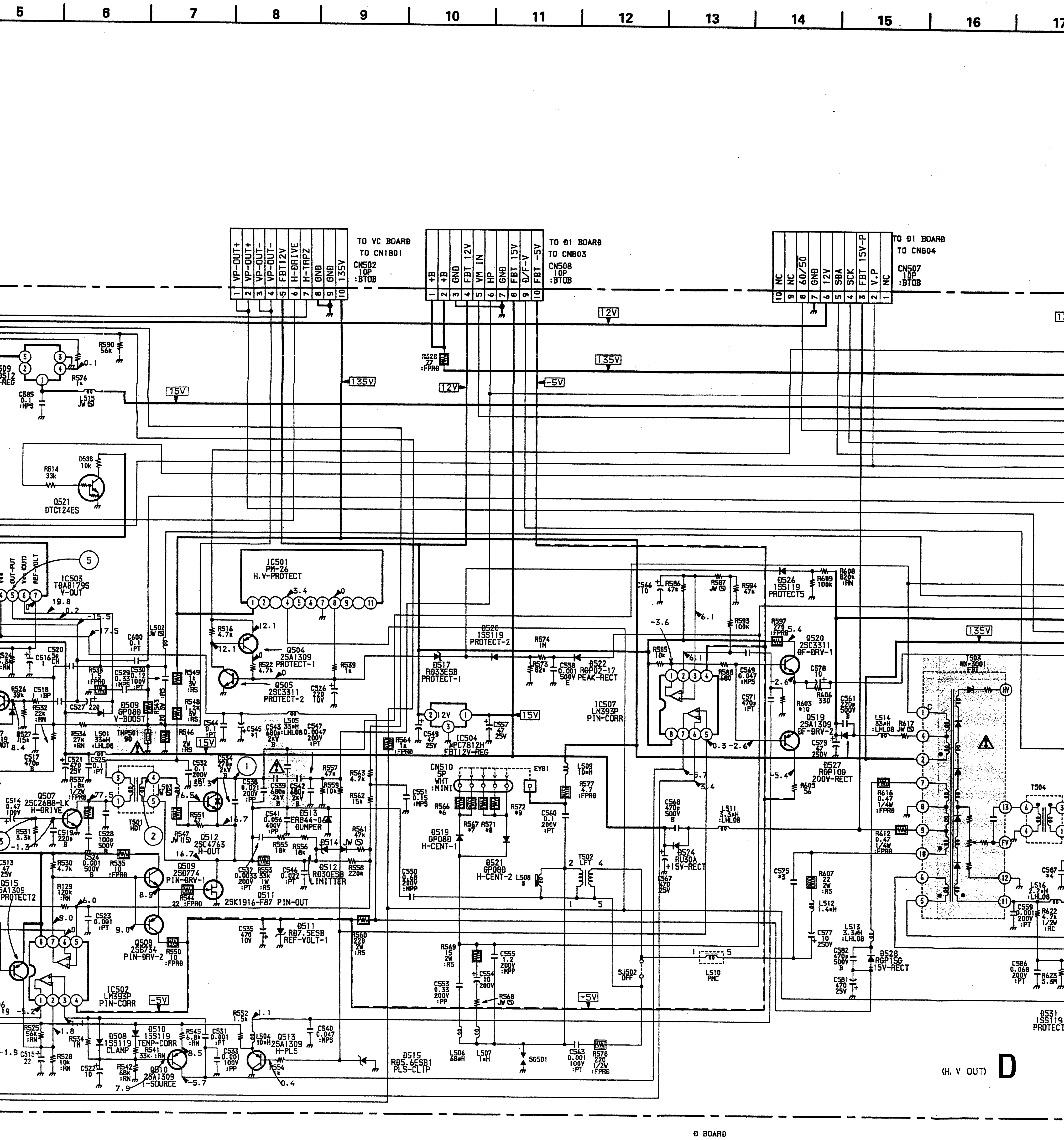

①
1200 Vp-p (H)
②
130Vp-p (H)
③
3.5Vp-p(H)
④
0.5 Vp-p (V)
⑤
75Vp-p (V)
⑥
68Vp-p (V)
⑦
12Vp-p(V)

D Board IC503 TDA8179S


②
⑥
③
FLYBACK GENERATOR
①
POWER AMPLIFIER
−
+
⑦
⑤
THERMAL PROTECTION
④


1
2
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
1 STBY2
2 ABL
3 FIL SW
4 VP I/O
D503
RD5.6ESB1
REF-VOLT-3
6.0
D502
RD5.6ESB1
REF-VOLT-3
D501
1SS119
TEMP-CORR

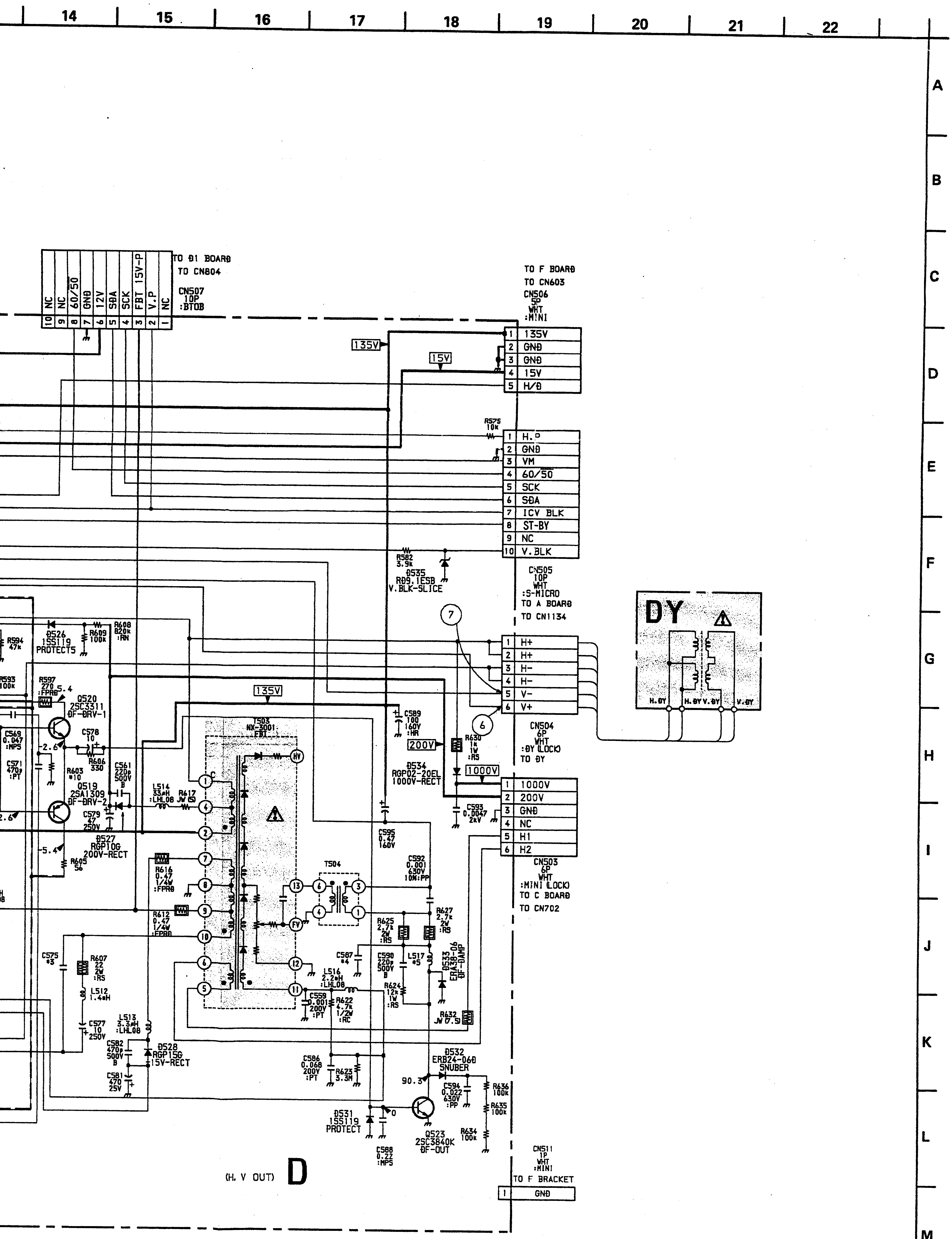

1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
TO A BOARD
TO CN1132
CN501
10P
WHT
:S-MICRO
STBY2
ABL
FIL SW
VP I/O
E/W
V DRIVE
HD
9V
GND
H-TRPZ
TO VC BOARD
TO CN1801
CN502
10P
:BTOB
VP-OUT+
VP-OUT+
VP-OUT-
VP-OUT-
FBT12V
H-DRIVE
H-TRPZ
GND
GND
135V
TO Ø1 BOARD
TO CN803
CN508
10P
:BTOB
+B
+B
GND
FBT 12V
VM IN
HP
GND
FBT 15V
D/F-V
FBT -5V
12V
9V
15V
135V
-5V
IC509
L78OS12
12V-REG
IC508
μPC7893HF
9V-REG
Q523
RD5.1ESB1
SLICE
Q514
DTC124ES
INVERT
Q521
DTC124ES
IC503
TDA8179S
V-OUT
BRV-IN
Vcc
F.B.-PLS
Vee
OUT-PUT
Vcc OUT
REF-VOLT
IC501
PM-26
H.V-PROTECT
Q504
2SA1309
PROTECT-1
Q505
2SC3311
PROTECT-2
Q503
2SC3311
V-PROT
Q506
2SC3311
BUFF
Q507
1SS119
TR-PROT
Q509
GP08D
V-BOOST
Q507
2SC2688-LK
H-DRIVE
T501
HDT
Q512
2SC4763
H-OUT
Q513
ERB44-06
DUMPER
Q512
RD30ESB
LIMITTER
Q511
2SK1916-F87 PIN-OUT
Q509
2SB774
PIN-DRV-1
Q508
2SB734
PIN-DRV-2
Q515
2SA1309
PIN-PROTECT2
IC502
LM393P
PIN-CORR
Q501
2SA1309
C-SPLY
Q505
1SS119
TEMP-CORR
Q503
RD5.6ESB1
REF-VOLT-3
Q502
RD5.6ESB1
REF-VOLT-3
Q501
1SS119
TEMP-CORR
Q504
RD6.2ESB2
DC-SHIFT
Q502
2SC3311
INVERT
Q506
1SS119
Q508
1SS119
CLAMP
Q510
1SS119
TEMP-CORR
Q510
2SA1309
I-SOURCE
Q513
2SA1309
H-PLS
Q511
RD7.5ESB
REF-VOLT-1
Q515
RD5.6ESB1
PLS-CLIP
Q520
1SS119
PROTECT-2
Q517
RD33ESB
PROTECT-1
Q522
RGP02-17
PEAK-RECT
IC504
μPC7812H
FBT12V-REG
IC507
LM393P
PIN-COR
CN510
5P
WHT
:MINI
EY81
Q519
GP08D
H-CENT-1
Q521
GP08D
H-CENT-2
T502
LFT
SG501


5
6
7
8
9
10
11
12
13
14
15
16
TO VC BOARD
TO CN1801
CN502
10P
:BTOB
VP-OUT+
VP-OUT+
VP-OUT-
VP-OUT-
FBT12V
H-DRIVE
H-TRPZ
GND
GND
135V
TO D1 BOARD
TO CN803
CN508
10P
:BTOB
+B
+B
GND
FBT 12V
VM IN
HP
GND
FBT 15V
D/F-V
FBT -5V
TO D1 BOARD
TO CN804
CN507
10P
:BTOB
NC
NC
60/50
GND
12V
SDA
SCK
FBT 15V-P
V.P
NC
12V
135V
15V
-5V
Q521
DTC124ES
IC501
PM-26
H.V-PROTECT
IC503
TDA8179S
V-OUT
Q504
2SA1309
PROTECT-1
Q505
2SC3311
PROTECT-2
D520
1SS119
PROTECT-2
D517
RD33ESB
PROTECT-1
D522
RGP02-17
PEAK-RECT
IC507
LM393P
PIN-CORR
D526
1SS119
PROTECT5
Q520
2SC3311
DF-DRV-1
Q519
2SA1309
DF-DRV-2
D527
RGP10G
200V-RECT
T503
NX-3001
FBT
HV
FV
T504
D509
GP08D
V-BOOST
Q507
2SC2688-LK
H-DRIVE
T501
HDT
Q512
2SC4763
H-OUT
Q509
2SB774
PIN-DRV-1
Q511
2SK1916-F87 PIN-OUT
D513
ERB44-06
DUMPER
D512
RD30ESB
LIMITTER
D511
RD7.5ESB
REF-VOLT-1
IC504
μPC7812H
FBT12V-REG
CN510
5P
WHT
:MINI
EY81
D519
GP08D
H-CENT-1
D521
GP08D
H-CENT-2
T502
LFT
D524
RU3DA
+15V-RECT
D528
RGP15G
15V-RECT
L510
PMC
SJ502
OFF
Q515
2SA1309
PROTECT2
Q508
2SB734
PIN-DRV-2
IC502
LM393P
PIN-CORR
D508
1SS119
CLAMP
D510
1SS119
TEMP-CORR
Q510
2SA1309
I-SOURCE
Q513
2SA1309
H-PLS
D515
RD5.6ESB1
PLS-CLIP
SG501
D531
1SS119
PROTECT
(H. V OUT)
D

D BOARD

*MARK LIST

	KV-S34MN1	KV-S34SN1	KV-S34JN1	KV-S29MN1 S29SN1 S29JN1
*1 C545	470 25V	470 25V	470 25V	220 25V
*2 C570	————	————	————	220 25V
*3 C575	0.68 200V :MPP	0.68 200V :MPP	0.68 200V :MPP	1 200V :MPP
*4 C587	0.0047 630V :PP	0.0047 630V :PP	0.0047 630V :PP	0.0022 630V :
*5 L517	7.5μH	7.5μH	7.5μH	10μH
*6 R566	0.22 2W :RS	5.6 2W :RS	33 2W :RS	33 2W :RS
*7 R567	68 2W :RS	100 2W :RS	330 2W :RS	330 2W :RS
*8 R571	————	390 2W :RS	150 2W :RS	150 2W :RS
*9 R572	47 3W :RS	82 3W :RS	47 3W :RS	47 3W :RS
*10 R603	12K :RN	12K :RN	12K :RN	16K :RN


14
15
16
17
18
19
20
21
22
A
B
C
D
E
F
G
H
I
J
K
L
M
TO D1 BOARD
TO CN804
CN507
10P
:BTOB
NC
NC
60/50
GND
12V
SDA
SCK
FBT 15V-P
V.P
NC
TO F BOARD
TO CN603
CN506
5P
WHT
:MINI
135V
GND
GND
15V
H/D
135V
15V
R575
10k
H.D
GND
VM
60/50
SCK
SDA
ICV BLK
ST-BY
NC
V.BLK
R582
3.9k
D535
RD9.1ESB
V.BLK-SLICE
CN505
10P
WHT
:S-MICRO
TO A BOARD
TO CN1134
DY
H.DY
H.DY
V.DY
V.DY
H+
H+
H-
H-
V-
V+
CN504
6P
WHT
:DY (LOCK)
TO DY
D526
1SS119
PROTECTS
R609
100k
R608
820k
:RN
R594
47k
R593
100k
R597
270
:FPRD
5.4
Q520
2SC3311
DF-DRV-1
C569
0.047
:MPS
C571
470p
:PT
-2.6
C578
10
R606
330
R603
*10
Q519
2SA1309
DF-DRV-2
C561
220p
500V
B
C579
47
250V
-5.4
D527
RGP10G
200V-RECT
R605
56
L514
33μH
:LHL08
R617
JW (5)
135V
T503
NX-3001
FBT
HV
C589
100
160V
:HR
6
7
200V
R630
1k
1W
:RS
D534
RGP02-20EL
1000V-RECT
1000V
C593
0.0047
2kV
1000V
200V
GND
NC
H1
H2
CN503
6P
WHT
:MINI (LOCK)
TO C BOARD
TO CN702
C595
0.47
160V
R616
0.47
1/4W
:FPRD
R612
0.47
1/4W
:FPRD
T504
C592
0.001
630V
10%:PP
R627
2.7k
2W
:RS
R625
2.7k
2W
:RS
FV
C575
*3
R607
22
2W
:RS
L512
1.4mH
C587
*4
C590
220p
500V
B
L517
*5
D533
ERA38-06
DF-DAMP
L516
2.2μH
:LHL08
R624
12k
1W
:RS
C559
0.001
200V
:PT
R622
4.7k
1/2W
:RC
R632
JW (7.5)
C577
10
250V
L513
3.3μH
:LHL08
C582
470p
500V
B
D528
RGP15G
15V-RECT
C581
470
25V
C586
0.068
200V
:PT
R623
3.3M
D532
ERB24-06D
SNUBER
90.3
C594
0.022
630V
:PP
R636
100k
R635
100k
D531
1SS119
PROTECT
0
Q523
2SC3840K
DF-OUT
R634
100k
C588
0.22
:MPS
CN511
1P
WHT
:MINI
TO F BRACKET
GND
(H. V OUT)
D

B-SS4289<GE.>-D..

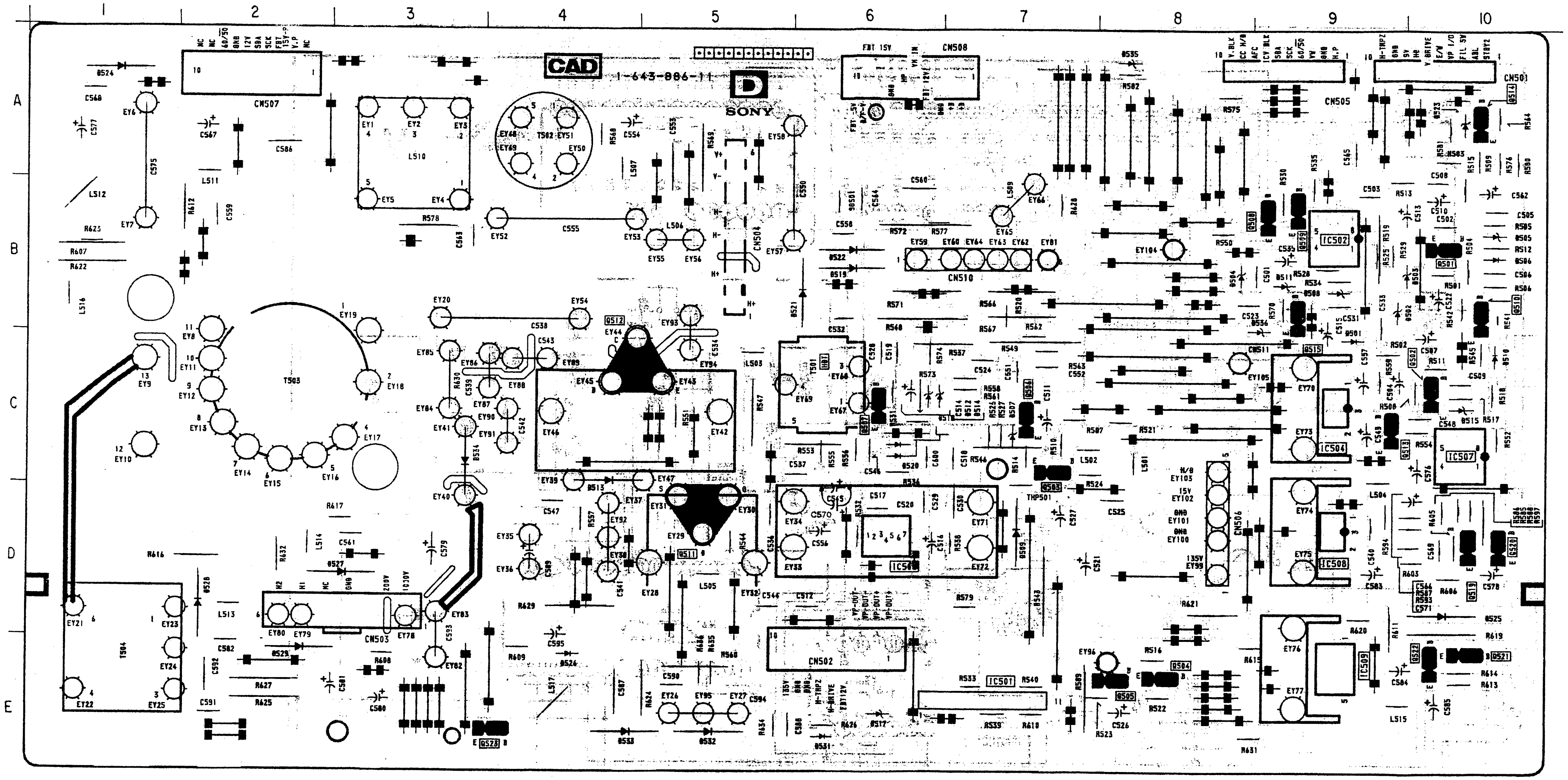
T

KV-S34MN1	KV-S34SN1	KV-S34JN1	KV-S29MN1 S29SN1 S29JN1
470 25V	470 25V	470 25V	220 25V
———	———	———	220 25V
0.68 200V :MPP	0.68 200V :MPP	0.68 200V :MPP	1 200V :MPP
0.0047 630V :PP	0.0047 630V :PP	0.0047 630V :PP	0.0022 630V :PP
7.5mH	7.5mH	7.5mH	10mH
0.22 2W :RS	5.6 2W :RS	33 2W :RS	33 2W :RS
68 2W :RS	100 2W :RS	330 2W :RS	330 2W :RS
———	390 2W :RS	150 2W :RS	150 2W :RS
47 3W :RS	82 3W :RS	47 3W :RS	47 3W :RS
12K :RN	12K :RN	12K :RN	16K :RN

D [H/V OUT]

PRINTED WIRING BOARD

– D Board –


1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
CAD
1-643-886-11
D
SONY
CN507
CN508
CN505
CN501
CN510
CN504
CN506
CN503
CN502
T503
T504
T502
IC501
IC502
IC503
IC504
IC507
IC508
IC509

D Board

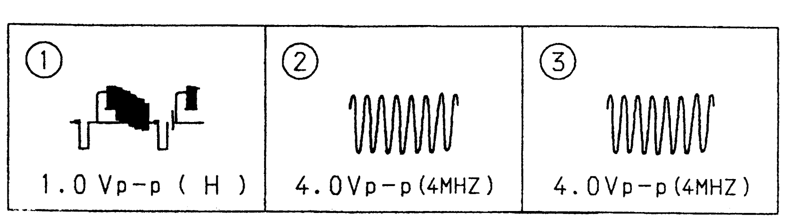
IC	
IC501	E – 7
IC502	B – 9
IC503	D – 6
IC504	C – 9
IC507	C – 10
IC508	D – 9
IC509	E – 9

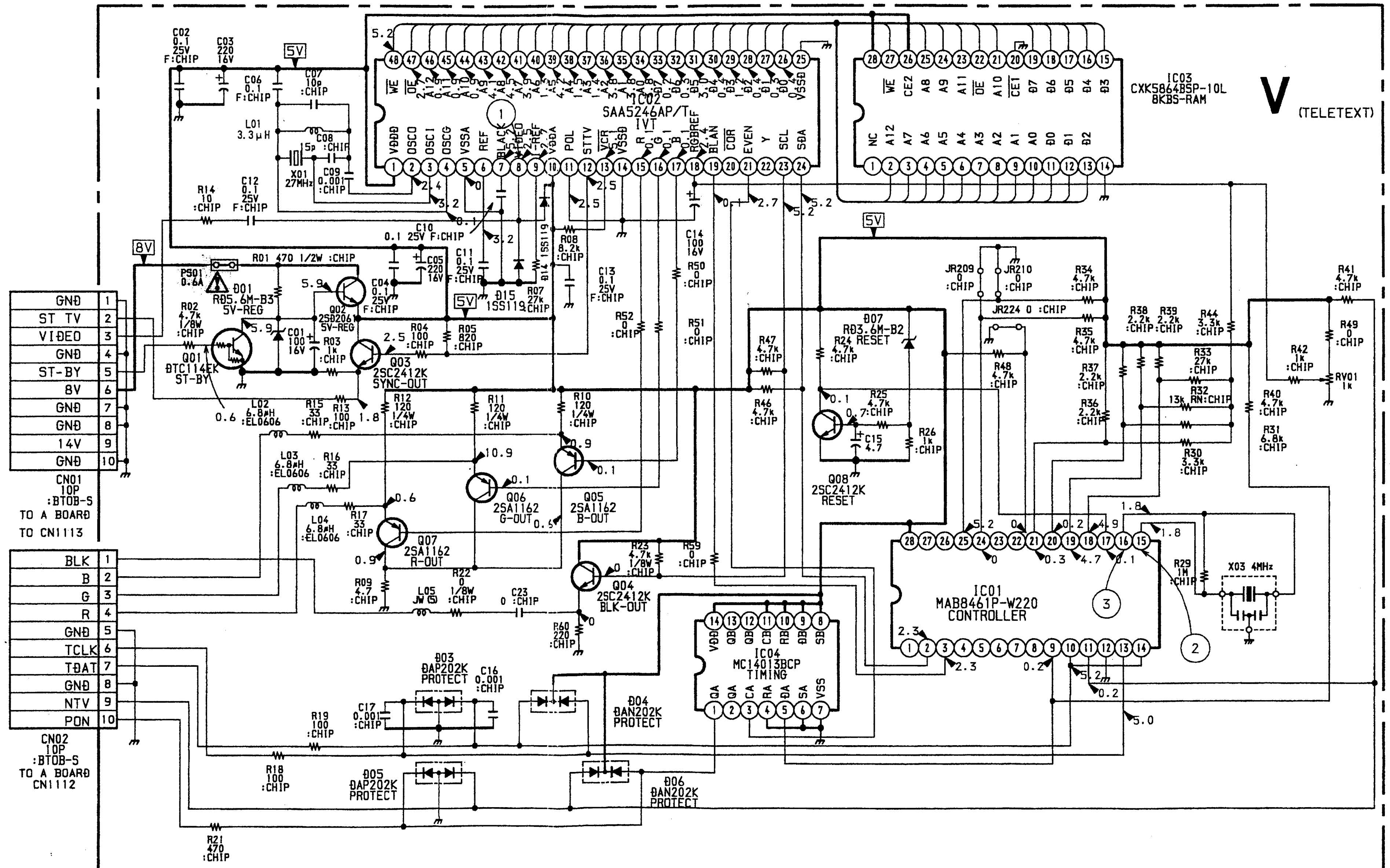
TRANSISTOR	
Q501	B – 10
Q502	C – 10
Q503	C – 7
Q504	E – 8
Q505	E – 8
Q506	C – 7
Q507	C – 6
Q508	B – 9
Q509	B – 9
Q510	B – 10
Q511	D – 5
Q512	C – 4
Q513	C – 9
Q514	A – 10
Q515	B – 9
Q519	D – 10
Q520	D – 10
Q523	E – 4

DIODE	
D501	C – 9
D502	B – 9
D503	B – 9
D504	B – 8
D505	B – 10
D506	B – 10
D507	C – 7
D508	B – 9
D509	D – 7
D510	C – 10
D511	B – 9
D512	C – 6
D513	C – 4
D515	C – 10
D517	E – 6
D519	B – 6
D520	C – 6
D521	B – 6
D522	B – 6
D523	A – 10
D524	A – 1
D526	E – 4
D527	D – 3
D528	D – 2
D529	E – 2
D531	E – 6
D532	E – 5
D533	E – 4
D534	C – 3
D535	A – 8
D536	B – 9

(10) SCHEMATIC DIAGRAM OF V BOARD

V BOARD WAVEFORMS



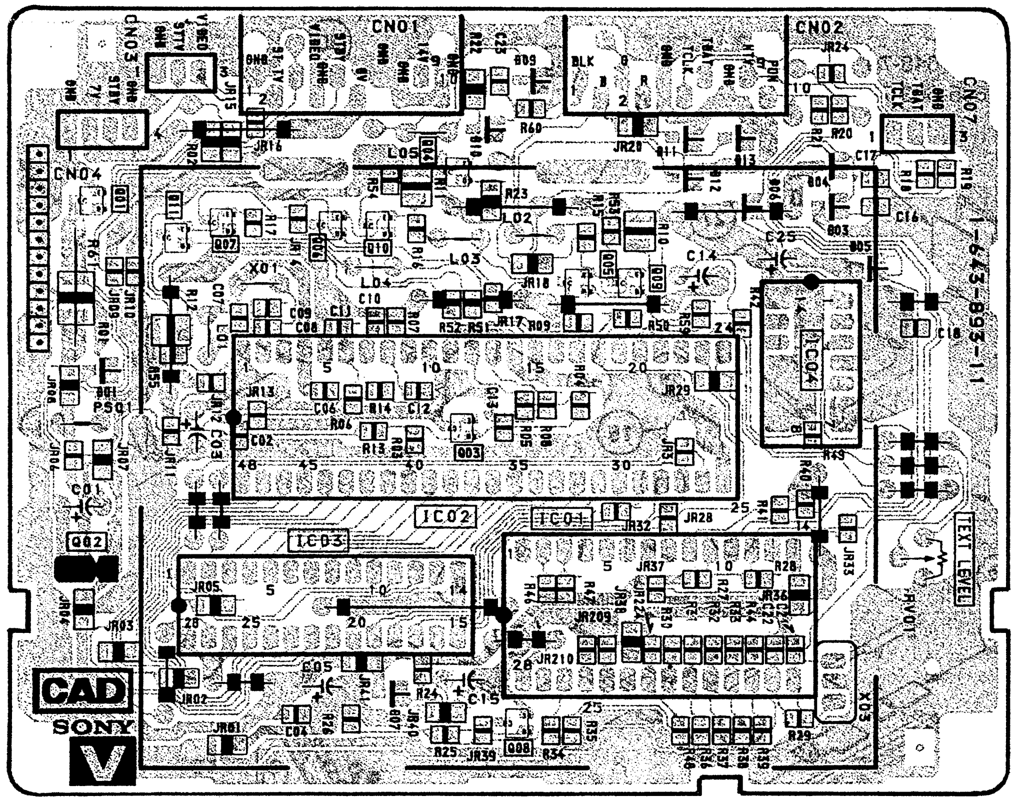

V (TELETEXT)
IC02 SAA5246AP/T IVT
VDDD
OSCO
OSCI
OSCG
VSSA
REF
BLACK
VIDEO
I-REF
VDDA
POL
STTV
VCR
VSSD
R
G
B
RGBREF
BLAN
COR
EVEN
Y
SCL
SDA
VSSD
WE
OE
IC03 CXK5864BSP-10L 8KBS-RAM
NC
A12
A7
A6
A5
A4
A3
A2
A1
A0
D0
D1
D2
D3
D4
D5
D6
D7
CE1
A10
A11
A9
A8
CE2
C02 0.1 25V F:CHIP
C03 220 16V
5V
C06 0.1 F:CHIP
C07 10p :CHIP
L01 3.3μH
C08 15p :CHIP
X01 27MHz
C09 0.001 :CHIP
R14 10 :CHIP
C12 0.1 25V F:CHIP
C10 0.1 25V F:CHIP
8V
PS01 0.6A
R01 470 1/2W :CHIP
D01 RD5.6M-B3 5V-REG
C05 220 16V
C04 0.1 25V F:CHIP
C11 0.1 25V F:CHIP
D15 1SS119
D14 1SS119
R07 27k :CHIP
R08 8.2k :CHIP
C13 0.1 25V F:CHIP
C14 100 16V
R50 0 :CHIP
R52 0 :CHIP
R51 0 :CHIP
Q02 2SD2061 5V-REG
R02 4.7k 1/8W :CHIP
Q01 DTC114EK ST-BY
C01 100 16V
R03 1k :CHIP
R04 100 :CHIP
R05 820 :CHIP
Q03 2SC2412K SYNC-OUT
GND
ST TV
VIDEO
GND
ST-BY
8V
GND
GND
14V
GND
CN01 10P :BTOB-S TO A BOARD TO CN1113
L02 6.8μH :EL0606
R15 33 :CHIP
R13 100 :CHIP
R12 120 1/4W :CHIP
R11 120 1/4W :CHIP
R10 120 1/4W :CHIP
L03 6.8μH :EL0606
R16 33 :CHIP
Q06 2SA1162 G-OUT
Q05 2SA1162 B-OUT
L04 6.8μH :EL0606
R17 33 :CHIP
Q07 2SA1162 R-OUT
R09 4.7 :CHIP
L05 JW (5)
R22 0 1/8W :CHIP
C23 0 :CHIP
R23 4.7k 1/8W :CHIP
R59 0 :CHIP
Q04 2SC2412K BLK-OUT
R60 220 :CHIP
BLK
B
G
R
GND
TCLK
TDAT
GND
NTV
PON
CN02 10P :BTOB-S TO A BOARD CN1112
D03 DAP202K PROTECT
C16 0.001 :CHIP
C17 0.001 :CHIP
R19 100 :CHIP
D04 DAN202K PROTECT
R18 100 :CHIP
D05 DAP202K PROTECT
D06 DAN202K PROTECT
R21 470 :CHIP
IC04 MC14013BCP TIMING
VDD
QB
QB
CB
RB
DB
SB
QA
QA
CA
RA
DA
SA
VSS
JR209 0 :CHIP
JR210 0 :CHIP
JR224 0 :CHIP
R34 4.7k :CHIP
R35 4.7k :CHIP
R47 4.7k :CHIP
R46 4.7k :CHIP
D07 RD3.6M-B2
R24 RESET 4.7k :CHIP
R48 4.7k :CHIP
R25 4.7k :CHIP
C15 4.7
R26 1k :CHIP
Q08 2SC2412K RESET
R38 2.2k :CHIP
R39 2.2k :CHIP
R44 3.3k :CHIP
R37 2.2k :CHIP
R36 2.2k :CHIP
R33 27k :CHIP
R32 13k RN:CHIP
R30 3.3k :CHIP
R41 4.7k :CHIP
R49 0 :CHIP
R42 1k :CHIP
RV01 1k
R40 4.7k :CHIP
R31 6.8k :CHIP
IC01 MAB8461P-W220 CONTROLLER
R29 1M :CHIP
X03 4MHz
①
②
③
5.2
2.4
3.2
0.1
3.2
2.5
2.5
0
2.7
5.2
5.2
5.9
5.9
2.5
0.6
1.8
10.9
0.9
0.1
0.1
0.6
0.5
0.9
0
0
0.1
0.7
5.2
0
0.2
4.9
1.8
1.8
0
0.3
4.7
0.1
2.3
2.3
0.2
5.2
0.2
5.0

B-SS4289<GE.>-V..

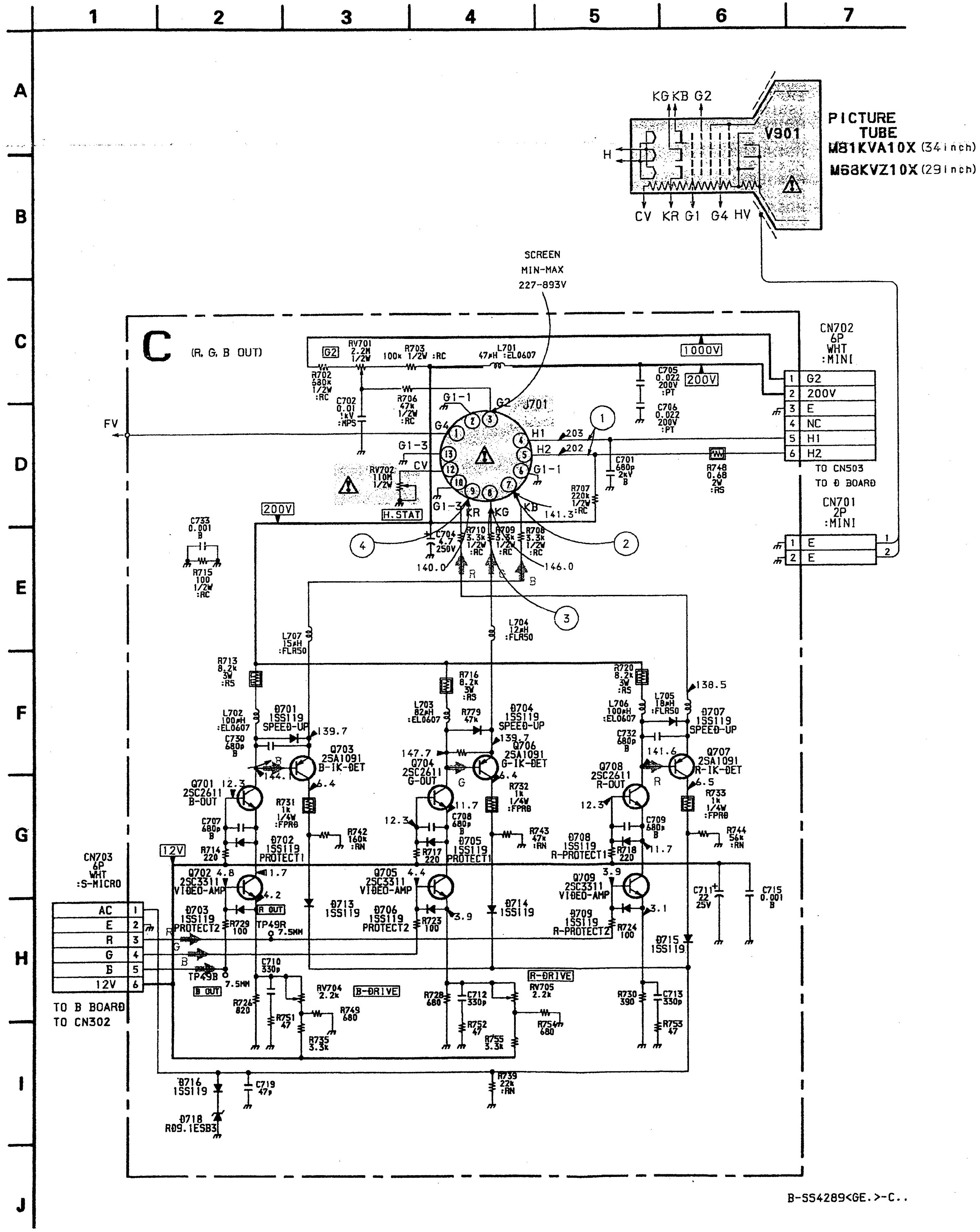
PRINTED WIRING BOARD

– V Board –

V [TELETEXT]


CN01
CN02
CN03
CN04
CN07
IC01
IC02
IC03
IC04
L02
L03
L04
L05
TEXT LEVEL
RV01
X01
X03
1-643-893-11
CAD
SONY
V

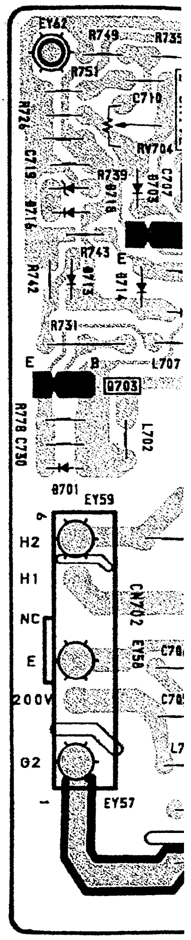
(11) SCHEMATIC DIAGRAM OF C BOARD


1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
I
J
C (R, G, B OUT)
PICTURE TUBE
M81KVA10X (34inch)
M68KVZ10X (29inch)
V901
KG KB G2
H
CV KR G1 G4 HV
SCREEN MIN-MAX 227-893V
CN702 6P WHT :MINI
G2
200V
E
NC
H1
H2
TO CN503 TO B BOARD
CN701 2P :MINI
E
E
CN703 6P WHT :S-MICRO
AC
E
R
G
B
12V
TO B BOARD TO CN302
FV
J701
1000V
200V
12V
H.STAT
Q701 2SC2611 B-OUT
Q702 2SC3311 VIDEO-AMP
Q703 2SA1091 B-IK-DET
Q704 2SC2611 G-OUT
Q705 2SC3311 VIDEO-AMP
Q706 2SA1091 G-IK-DET
Q707 2SA1091 R-IK-DET
Q708 2SC2611 R-OUT
Q709 2SC3311 VIDEO-AMP
D701 1SS119 SPEED-UP
D702 1SS119 PROTECT1
D703 1SS119 PROTECT2
D704 1SS119 SPEED-UP
D705 1SS119 PROTECT1
D706 1SS119 PROTECT2
D707 1SS119 SPEED-UP
D708 1SS119 R-PROTECT1
D709 1SS119 R-PROTECT2
D713 1SS119
D714 1SS119
D715 1SS119
D716 1SS119
D718 RD9.1ESB3
RV701 2.2M 1/2W
RV702 10M 1/2W
RV704 2.2k
RV705 2.2k
B-DRIVE
R-DRIVE
B OUT
R OUT
TP49B
TP49R
7.5MM
139.7
147.7
141.6
138.5
140.0
146.0
141.3
12.3
4.8
1.7
4.2
3.9
3.1
6.4
6.5
11.7
①
②
③
④
B-SS4289<GE.>-C..

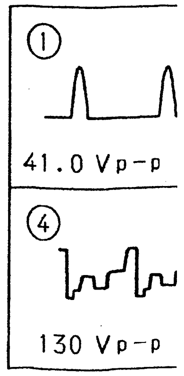
C [R.G.B OU

PRINTED WIRI

– C Board –

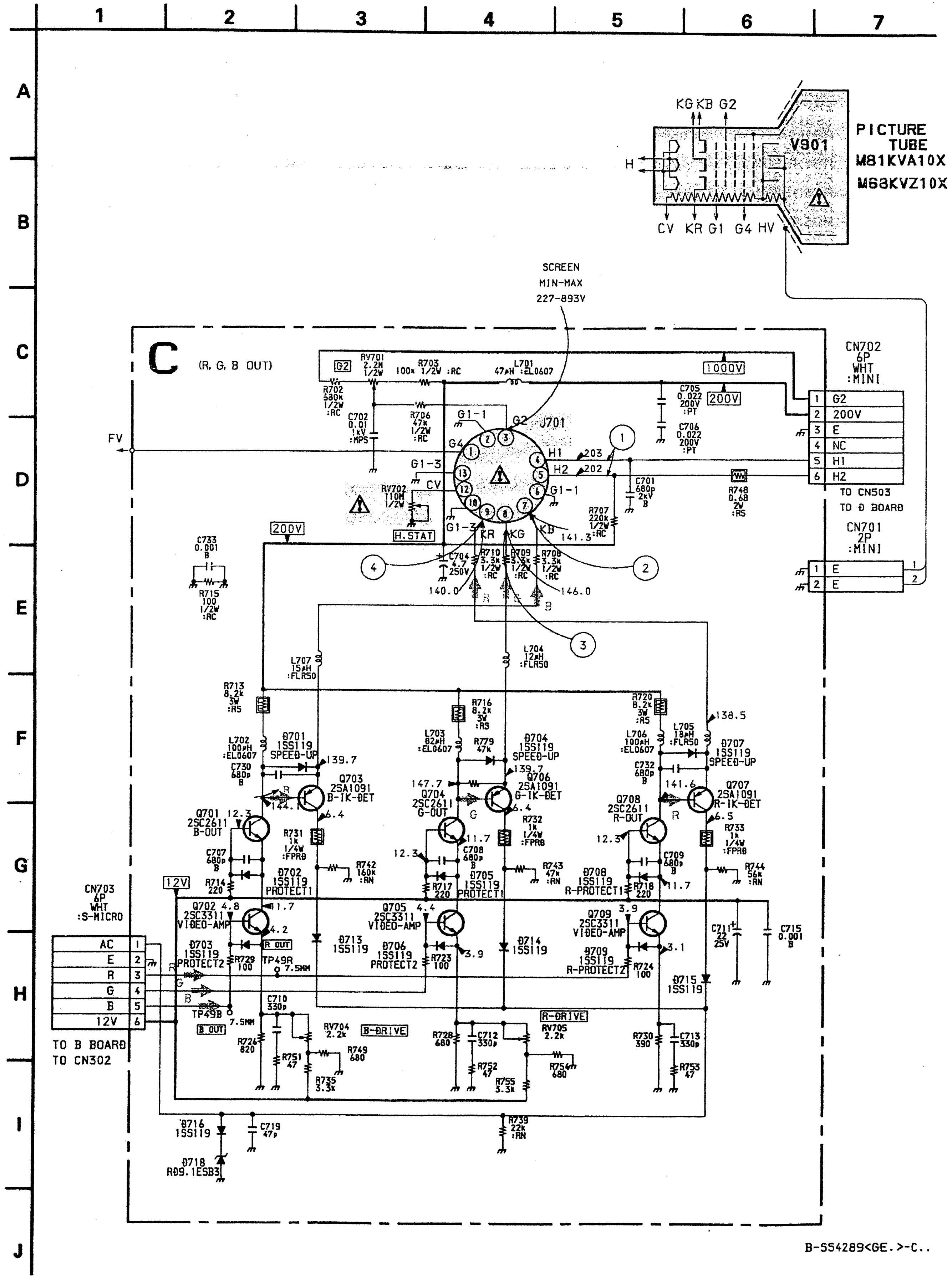

EY62
R749
R735
R751
C719
RV704
R739
R743
R731
R726
R716
R714
R742
C730
R778
D703
L707
L702
D701
EY59
H2
H1
NC
E
200V
G2
CN702
EY58
EY57

C BOARD WA



(11) SCHEMATIC DIAGRAM OF C BOARD

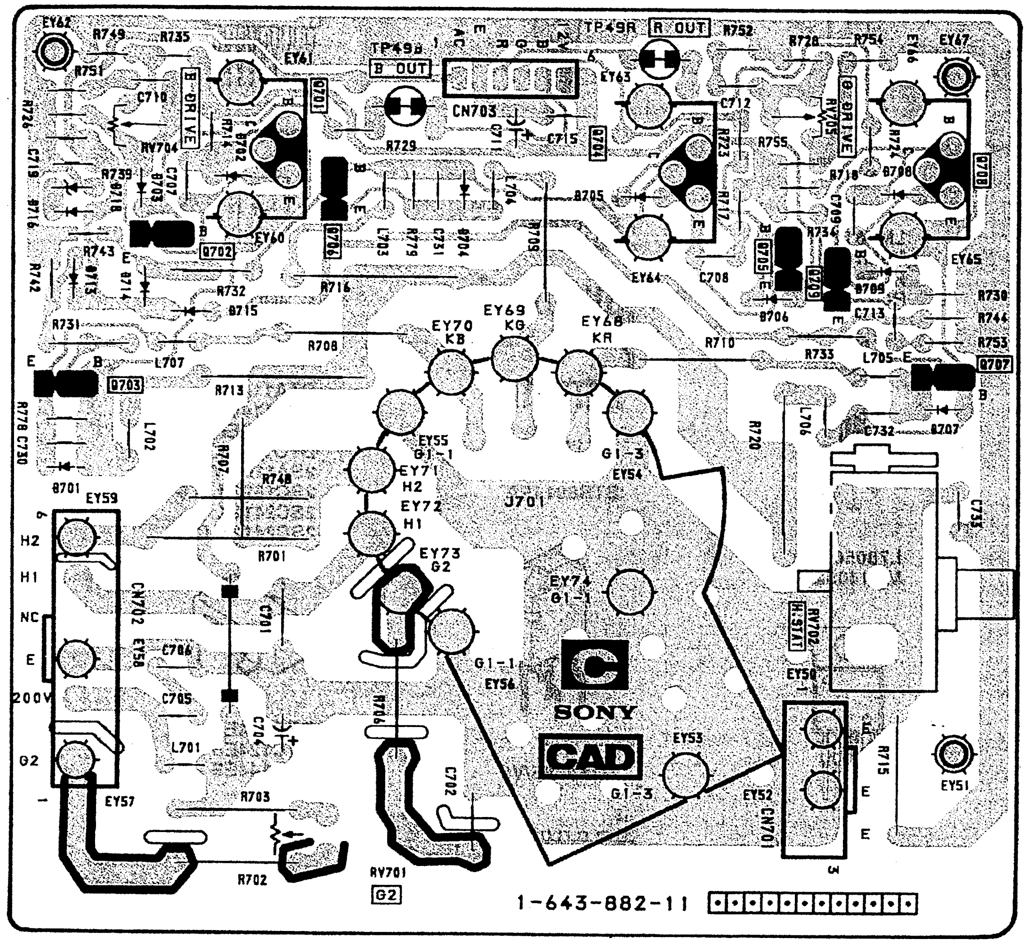
[TELETEXT]


1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
I
J
KG KB G2
H
V901
PICTURE TUBE
M81KVA10X (34inch)
M68KVZ10X (29inch)
CV KR G1 G4 HV
SCREEN MIN-MAX 227-893V
C (R, G, B OUT)
RV701
R703
L701
1000V
200V
CN702 6P WHT :MINI
G2
200V
E
NC
H1
H2
TO CN503 TO D BOARD
CN701 2P :MINI
E
E
FV
J701
G1-1
G1-3
H.STAT
RV702
C733
R715
200V
L707
L704
R713
R716
R720
L702
L703
L705
L706
Q701 2SC2611 B-OUT
Q702 1SS119 PROTECT1
Q703 2SA1091 B-IK-DET
Q704 2SC2611 G-OUT
Q705 1SS119 PROTECT1
Q706 2SA1091 G-IK-DET
Q707 2SA1091 R-IK-DET
Q708 2SC2611 R-OUT
Q709 2SC3311 VIDEO-AMP
Q702 2SC3311 VIDEO-AMP
Q705 2SC3311 VIDEO-AMP
Q713 1SS119
Q714 1SS119
Q715 1SS119
Q716 1SS119
Q718 RD9.1ESB3
CN703 6P WHT :S-MICRO
AC
E
R
G
B
12V
TO B BOARD TO CN302
12V
R OUT
TP49R
TP49B
B OUT
B-DRIVE
R-DRIVE
RV704
RV705
C719
R739
① ② ③ ④
B-S54289<GE.>-C..

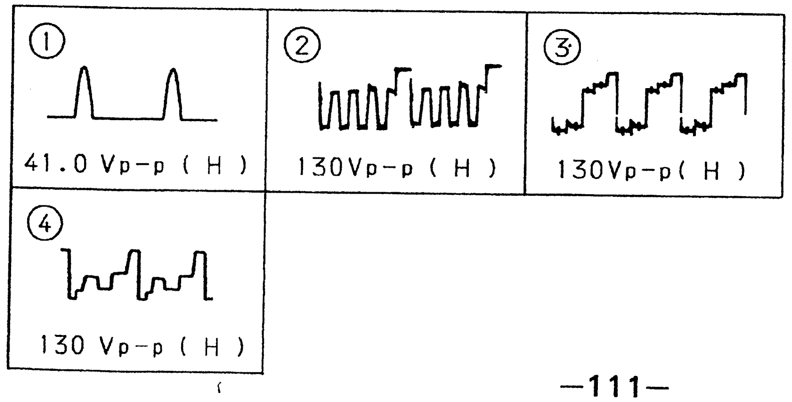
C [R.G.B OUT]

PRINTED WIRING BOARD

– C Board –

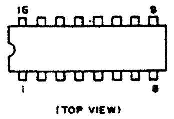

TP49B
B OUT
CN703
TP49R
R OUT
B-DRIVE
R-DRIVE
J701
CN702
CN701
RV701
G2
C
SONY
CAD
1-643-882-11

C BOARD WAVEFORMS

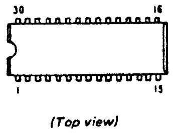


5-4. SEMICONDUCTORS

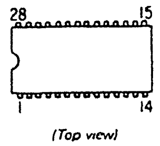
CXA1315M
CXA1315P
MC14052BCP
MC14053BCP
TDA4660V2
µPD4053BC


16
9
1
8
(TOP VIEW)

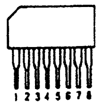
CXA1387S


30
16
1
15
(Top view)

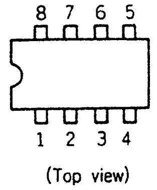
CXK5864BSP-10L


28
15
1
14
(Top view)

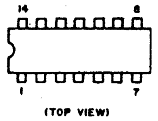
CX20125
LA7016



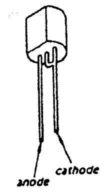
CX23025
MSM5258RS
NE5532P
SDA9086-3
TBA129
µPC358C
µPC4557C


8 7 6 5
1 2 3 4
(Top view)

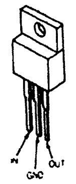
HD14013BP
MC14066BCP
MC14069UBF
SN74LS02N


14
8
1
7
(TOP VIEW)

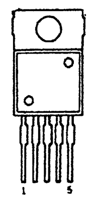
HZT33-02
µPC574J


anode
cathode

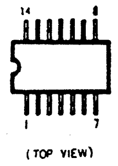
LM7812CT
NJM78M12FA
RC78M09FA
RC7812FA



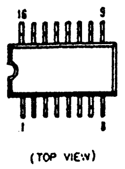
L780505
MC14052BF



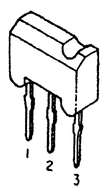
MC14066BF
MC74HC4066F


14
8
1
7
(TOP VIEW)

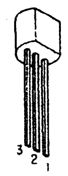
MC14528BF
MC74HC4053F


16
9
1
8
(TOP VIEW)

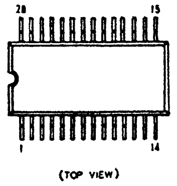
MN1280-S



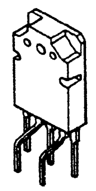
NJM78L09A
RC78L09A



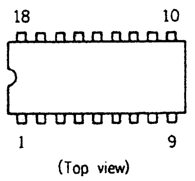
SDA9087XGEG
SDA9089XGEG
TDA4650/V4


28
15
1
14
(TOP VIEW)

STR80145A



TDA2595/V9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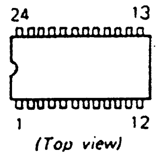
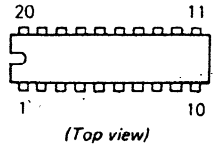
10
1
9
(Top view)

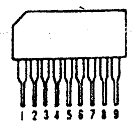
TDA6600-2


24
13
1
12
(Top view)

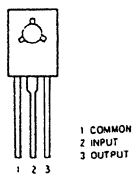
TDA8732


20
11
1
10
(Top view)

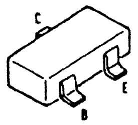
µPC4570HA-1



µPC78N05H


1 2 3
1 COMMON
2 INPUT
3 OUTPUT

DTA114EK
DTC114EK
DTC124EK
DTC144EK
2SA1162-YG
2SC1623-L5L6
2SC2412K
2SC2412K-QR



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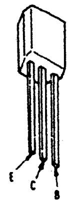
DTC124ES
DTC144ES



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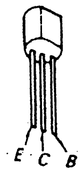

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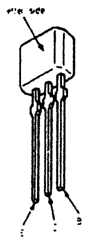

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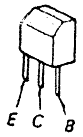

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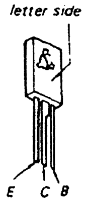
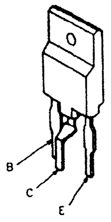
2SC2688-LK
2SC3840-K


letter side
E
C
B

2SC4763 (LBSONY)



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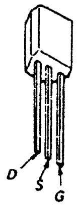

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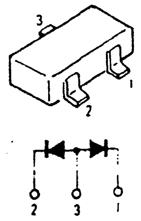

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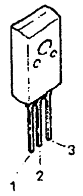

ERA32-004
ERA38-06
1SS119
RB100A
RD2.2ESB1
RD2.4ESB2
RD4.7ESB2
RD5.1ESB1
RD5.6ESB1
RD5.6ESB2
RD5.8ESB1
RD6.2ESB2
RD6.8ESB1
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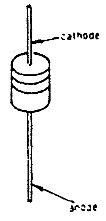
RD33ESB2
RD39ESB2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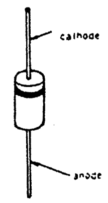
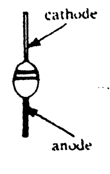
anode

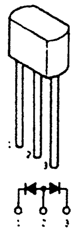
ERA81-004
RGP02-17


cathode
anode

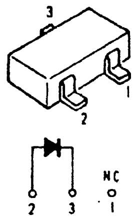
GP08D
U05G


cathode
anode

MA152WK



MA3056-TX
MA3091
MA3110
RD3.6MB3
RD5.1MB2
RD5.6MB2



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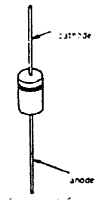
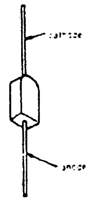
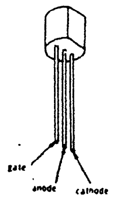
RU-3AM


cathode
anode

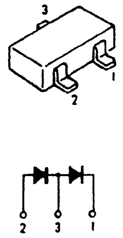
RM11C


cathode
anode

SHOR3D42


gate
anode
cathode

1SS226



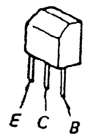
NOTE:
- Items with r
cription are
are seldom r
- The construc
part are ir
number in th

6-1. CH/

●: BVTP3
■: BVTP4

REF.NO.	PART NC
1	4-036-
2	*1-643-
3	*1-643-
4	4-036-
5	*A-1195-
6	4-036-
7	*A-1347-
	*A-1347-
8	*A-1346-
	*A-1346-
	*A-1346-
	*A-1346-
	*A-1346-
9	⚠ 1-439-
10	4-036-
11	*A-1373-
	*A-1373-
12	*1-643-
13	*A-1297-
	*A-1296-
	*A-1297-
	*A-1296-
14	*A-1306-
15	*A-1347-

2SB734-34
2SD774-34



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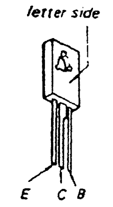
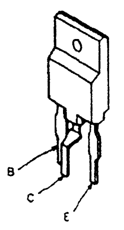
2SC2688-LK
2SC3840-K



2SC4763 (LBSONY)



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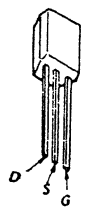

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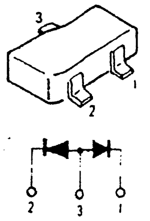

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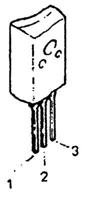

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ERA38-06
1SS119
RB100A
RD2.2ESB1
RD2.4ESB2
RD4.7ESB2
RD5.1ESB1
RD5.6ESB1
RD5.6ESB2
RD5.8ESB1
RD6.2ESB2
RD6.8ESB1
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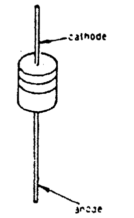
RD33ESB2
RD39ESB2



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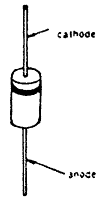
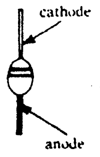


GP08D
U05G



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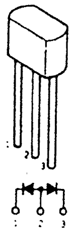
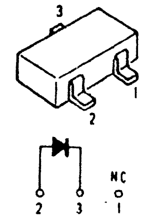


MA3056-TX
MA3091
MA3110
RD3.6MB3
RD5.1MB2
RD5.6MB2



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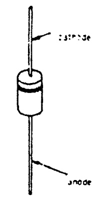
RU-3AM



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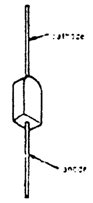
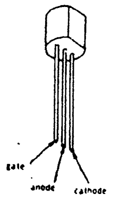


SHOR3D42



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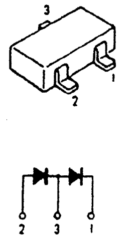


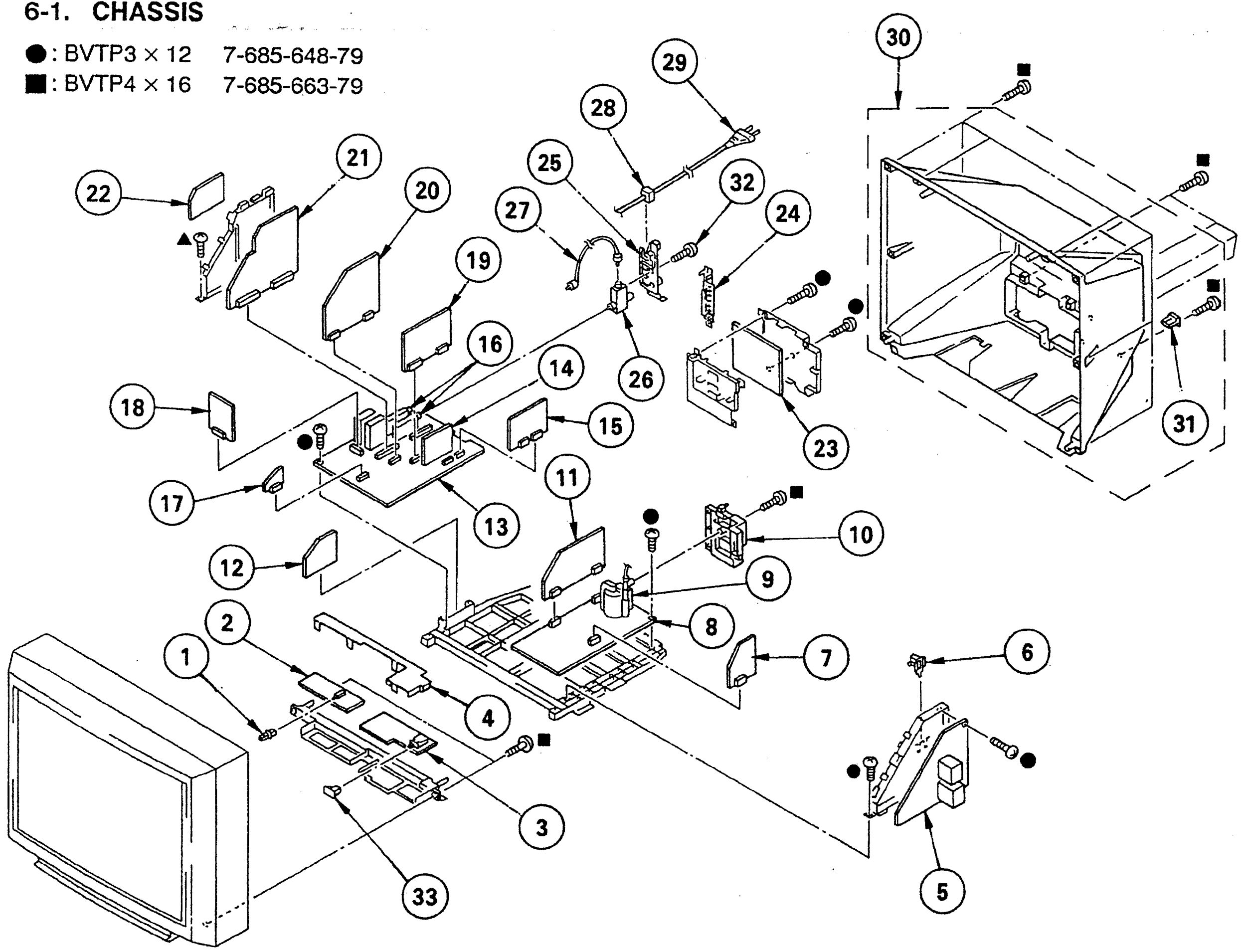
SECTION 6
EXPLODED VIEWS

NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " ★ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

6-1. CHASSIS

●: BVTP3 × 12 7-685-648-79
■: BVTP4 × 16 7-685-663-79

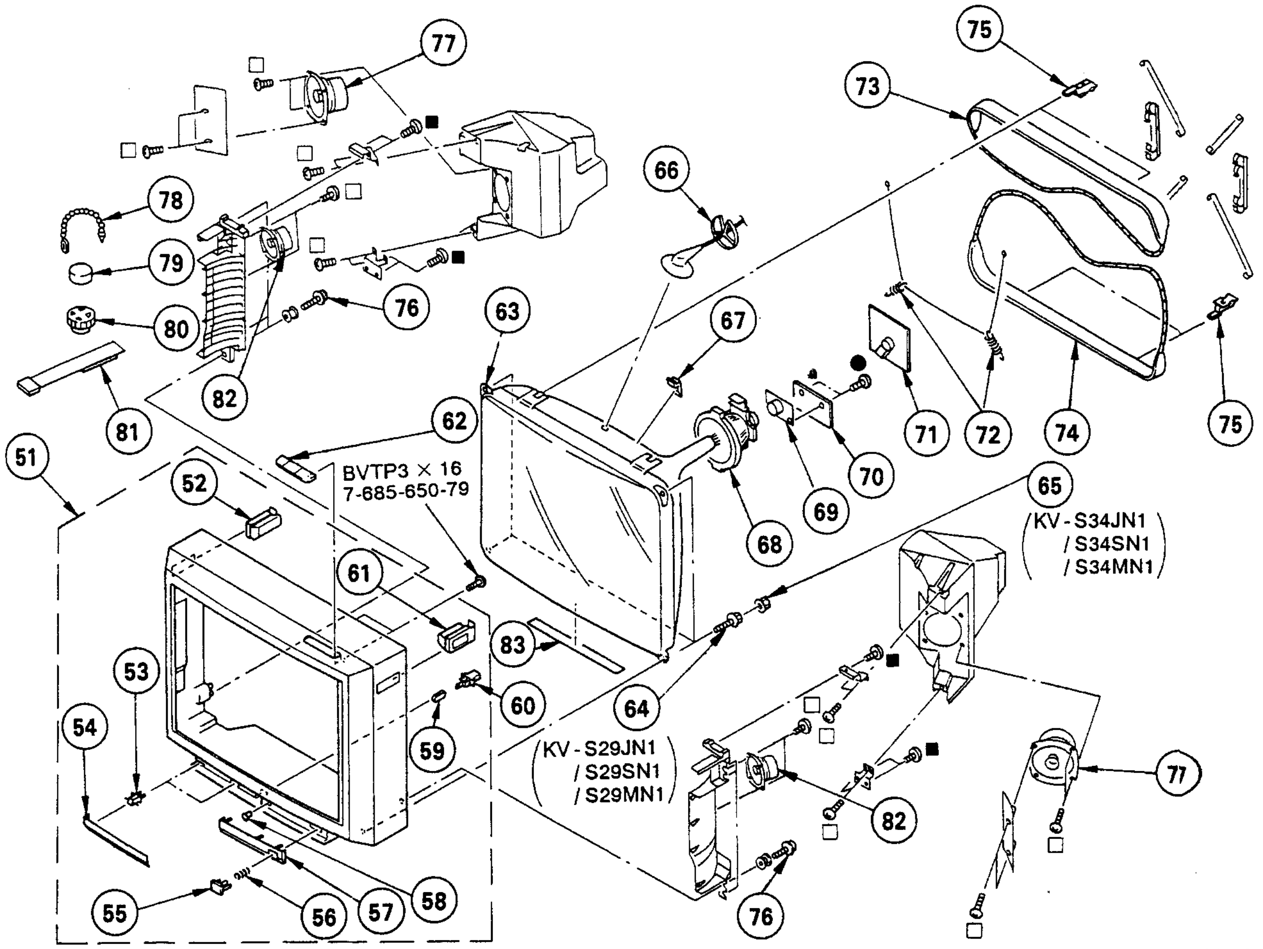


REF.NO.	PART NO.	DESCRIPTION	REMARK
1	4-036-764-01	BUTTON, SELECTION, AV	
2	*1-643-890-11	H1 BOARD	
3	*1-643-891-11	H2 BOARD	
4	4-036-794-01	COVER, H	
5	*A-1195-056-A	F BOARD, COMPLETE	
6	4-036-766-01	CLIP, VC PC BOARD	
7	*A-1347-064-A	VC BOARD, COMPLETE (KV-S29JN1,S29MN1,S29SN1)	
	*A-1347-063-A	VC BOARD, COMPLETE (KV-S34JN1,S34MN1,S34SN1)	
8	*A-1346-075-A	D BOARD, COMPLETE (KV-S29JN1,S29MN1)	
	*A-1346-110-A	D BOARD, COMPLETE (KV-S29SN1)	
	*A-1346-064-A	D BOARD, COMPLETE (KV-S34JN1)	
	*A-1346-106-A	D BOARD, COMPLETE (KV-S34MN1)	
	*A-1346-107-A	D BOARD, COMPLETE (KV-S34SN1)	
9	⚠1-439-524-11	TRANSFORMER ASSY, FLYBACK (NX-3000A2)	
10	4-036-788-01	BRACKET, FBT	
11	*A-1373-365-A	D1 BOARD, COMPLETE (KV-S29JN1,S29MN1,S29SN1)	
	*A-1373-334-A	D1 BOARD, COMPLETE (KV-S34JN1,S34MN1,S34SN1)	
12	*1-643-889-11	F1 BOARD	
13	*A-1297-064-A	A BOARD, COMPLETE (KV-S29JN1)	
	*A-1296-972-A	A BOARD, COMPLETE (KV-S29MN1,S29SN1)	14
	*A-1297-033-A	A BOARD, COMPLETE (KV-S34JN1)	14
	*A-1296-961-A	A BOARD, COMPLETE(KV-S34MN1,S34SN1)	14
14	*A-1306-425-A	M BOARD, COMPLETE(KV-S29JN1,S34JN1) (KV-S29MN1, S29SN1, S34MN1, S34SN1)	
15	*A-1347-062-A	V BOARD, COMPLETE	
16	⚠1-693-123-11	TUNER, ET (BTP-RG401)	
17	*1-644-746-11	A2 BOARD	
18	*A-1390-304-A	S BOARD, COMPLETE	
19	*A-1135-717-A	BP BOARD, COMPLETE	
20	*A-1297-031-A	A1 BOARD, COMPLETE	
21	*A-1135-741-A	B BOARD, COMPLETE (KV-S29JN1,S29MN1,S29SN	
	*A-1135-718-A	B BOARD, COMPLETE (KV-S34JN1,S34MN1,S34SN	
22	*A-1135-719-A	B1 BOARD, COMPLETE	
23	*A-1388-143-A	J BOARD, COMPLETE	
24	4-036-789-01	COVER, TERMINAL	
25	4-036-787-01	BRACKET, ANTENNA	
26	⚠1-251-027-11	DISTRIBUTOR	
27	*1-555-110-00	CABLE, PIN	
28	⚠4-335-154-02	GROMMET, AC CORD	
29	⚠1-696-401-11	CORD, POWER (WITH CONNECTOR) (KV-S29JN1,S34JN	
	⚠1-574-062-12	CORD, POWER (WITH CONNECTOR) (KV-S29MN1,S34MN	
	⚠1-574-358-11	CORD, POWER (WITH CONNECTOR) (KV-S29SN1,S34SN	
30	X-4030-652-2	COVER ASSY, REAR (KV-S29JN1,S29MN1,S29SN	31
	X-4030-446-1	COVER ASSY, REAR (KV-S34JN1,S34MN1,S34SN	31
31	4-033-719-01	BUCKLE, A	
32	4-379-611-01	SCREW (M3X8), +B	
33	4-394-972-01	CAP, POWER	

6-2. PICTURE TUBE

●: BVTP 3 × 12 7-685-648-79
■: BVTP 4 × 16 7-685-663-79
☐: BVTP 4 × 12 7-685-661-79

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.



REF.NO.	PART NO.	DESCRIPTION	REMARK
51	X-4030-778-1	CABINET ASSY (WITH BEZEL ASSY)	52~61 (KV-S29JN1)
	X-4030-687-1	CABINET ASSY (WITH BEZEL ASSY)	52~61 (KV-S29MN1)
	X-4030-776-1	CABINET ASSY (WITH BEZEL ASSY)	52~61 (KV-S29SN1)
	X-4030-688-1	CABINET ASSY (WITH BEZEL ASSY)	52~61 (KV-S34JN1)
	X-4030-650-1	CABINET ASSY (WITH BEZEL ASSY)	52~61 (KV-S34MN1)
	X-4030-666-1	CABINET ASSY (WITH BEZEL ASSY)	52~61 (KV-S34SN1)
52	4-033-553-03	HANDLE (L)	
53	3-703-035-11	SHAFT, LID	
54	4-036-782-71	DOOR (KV-S29JN1)	
	4-036-782-41	DOOR (KV-S29MN1)	
	4-036-782-61	DOOR (KV-S29SN1)	
	4-036-782-51	DOOR (KV-S34JN1)	
	4-036-782-11	DOOR (KV-S34MN1)	
	4-036-782-31	DOOR (KV-S34SN1)	
55	4-036-776-01	BUTTON, POWER	
56	4-038-104-01	SPRING, COMPRESSION	
57	4-036-783-01	PANEL	
58	*4-374-987-01	GUIDE, LIGHT	
59	4-036-765-01	ARM	
60	4-036-777-01	DAMPER	
61	4-033-552-03	HANDLE (R)	
62	1-466-752-11	BLOCK, SWITCH	
63	⚠.8-733-837-05	PICTURE TUBE (M68KUZ10X)	(KV-S29JN1,S29MN1)
	⚠.8-733-836-05	PICTURE TUBE (M68KUZ10X) (KV-S29SN1)	
	⚠.8-733-731-05	PICTURE TUBE (M81KVA10X) (KV-S34JN1)	
	⚠.8-733-733-05	PICTURE TUBE (M81KVA10X) (KV-S34MN1)	
	⚠.8-733-732-05	PICTURE TUBE (M81KVA10X) (KV-S34SN1)	
64	4-390-505-01	SCREW (7), TAPPING	(KV-S29JN1,S29MN1, S29SN1)
65	4-387-204-01	NUT, SPECIAL, PICTURE TUBE	(KV-S34JN1,S34MN1, S34SN1)
66	*3-704-372-01	HOLDER, HV CABLE	
67	3-704-495-01	SPACER, DY	
68	⚠.1-451-394-11	DEFLECTION YOKE (Y29EXA)	(KV-S29JN1,S29MN1, S29SN1)
	⚠.1-451-393-11	DEFLECTION YOKE (Y34EXA)	(KV-S34JN1,S34MN1, S34SN1)
69	⚠.1-452-616-12	NECK ASSY, PICTURE TUBE (NA323)	
70	*A-1342-186-A	VM BOARD, COMPLETE	
71	*A-1331-217-A	C BOARD, COMPLETE	
72	4-369-318-00	SPRING, TENSION	
73	⚠.1-402-742-11	COIL,DEGAUSSING(KV-S29JN1,S29MN1, S29SN1)	
	⚠.1-426-607-11	COIL,DEGAUSSING(KV-S34JN1,S34MN1, S34SN1)	
74	⚠.1-402-743-11	COIL,DEGAUSSING(KV-S29JN1,S29MN1, S29SN1)	
	⚠.1-426-608-11	COIL,DEGAUSSING(KV-S34JN1,S34MN1, S34SN1)	
75	4-033-545-01	CLIP (KV-S29JN1,S29MN1,S29SN1)	
	4-033-744-01	CLIP (KV-S34JN1,S34MN1,S34SN1)	
76	4-384-096-01	SCREW (4X16), TAPPING, +P	
77	1-544-557-11	SPEAKER (12CM)	
78	4-308-870-00	CLIP, LEAD WIRE	
79	1-452-032-00	MAGNET, DISK; 10MM ϕ	
80	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ	
81	X-4306-312-0	PERMALLOY ASSY, CONVERGENCE	
82	1-504-121-41	SPEAKER (SQUAWKER) (5CM)	
83	4-385-725-01	SHEET, BLOTTING	

BP

SECTION 7
ELECTRICAL PARTS LIST

NOTE:

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

When indicating parts by reference number, please include the board name.

CAPACITORS
- MF : μF, PF : μμF

COILS
- MMH : mH, UH : μH

RESISTORS
- All resistors are in ohms
- F : nonflammable

REF.NO.	PART NO.	DESCRIPTION			REMARK
	*A-1135-717-A	BP BOARD, COMPLETE ******************			
	4-038-322-01	CUSHION			
		<FILTER>			
BF3301	1-236-063-11	MODULE, B.P.F			
		<CAPACITOR>			
C3301	1-124-477-11	ELECT	47MF	20%	16V
C3302	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C3303	1-124-477-11	ELECT	47MF	20%	16V
C3304	1-163-135-00	CERAMIC CHIP	560PF	5%	50V
C3305	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C3306	1-124-903-11	ELECT	1MF	20%	50V
C3307	1-136-489-81	FILM	0.022MF	5%	50V
C3308	1-163-033-00	CERAMIC CHIP	0.022MF		50V
C3309	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C3310	1-124-903-11	ELECT	1MF	20%	50V
C3311	1-126-103-11	ELECT	470MF	20%	16V
C3312	1-136-493--B	FILM	0.047MF	5%	50V
C3313	1-163-111-00	CERAMIC CHIP	56PF	5%	50V
C3314	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C3315	1-136-171-00	FILM	0.33MF	5%	50V
C3316	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C3317	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C3318	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C3319	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C3320	1-216-037-00	METAL GLAZE	330	5%	1/10W
C3321	1-136-497--B	FILM	0.1MF	5%	50V
C3322	1-216-037-00	METAL GLAZE	330	5%	1/10W
C3323	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C3324	1-136-489-81	FILM	0.022MF	5%	50V
C3325	1-136-497--B	FILM	0.1MF	5%	50V
C3326	1-136-489-81	FILM	0.022MF	5%	50V
C3327	1-136-497--B	FILM	0.1MF	5%	50V
C3328	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C3329	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C3330	1-163-123-00	CERAMIC CHIP	180PF	5%	50V
C3331	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C3332	1-136-497--B	FILM	0.1MF	5%	50V
C3333	1-124-910-11	ELECT	47MF	20%	50V
C3334	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C3335	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C3336	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C3337	1-124-910-11	ELECT	47MF	20%	50V
C3338	1-136-497--B	FILM	0.1MF	5%	50V
C3339	1-136-497--B	FILM	0.1MF	5%	50V
C3340	1-136-497--B	FILM	0.1MF	5%	50V
C3341	1-130-491-00	MYLAR	0.047MF	5%	50V
C3342	1-106-343-00	FILM	0.001MF	5%	100V
C3343	1-124-034-51	ELECT	33MF	20%	16V
C3344	1-124-903-11	ELECT	1MF	20%	50V
C3345	1-136-169-00	FILM	0.22MF	5%	50V
C3346	1-130-483-00	MYLAR	0.01MF	5%	50V
C3347	1-126-101-11	ELECT	100MF	20%	16V
C3348	1-136-287-11	FILM	0.0047MF	5%	50V
C3349	1-136-175-00	FILM	0.68MF	5%	50V
C3350	1-130-483-00	MYLAR	0.01MF	5%	50V
C3351	1-130-487-00	MYLAR	0.022MF	5%	50V
C3352	1-124-927-11	ELECT	4.7MF	20%	50V
C3353	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C3354	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C3356	1-124-126-00	ELECT	47MF	20%	10V
C3357	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3358	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C3359	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C3360	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C3361	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3362	1-124-443-00	ELECT	100MF	20%	6.3V
C3363	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3364	1-124-477-11	ELECT	47MF	20%	16V
C3365	1-124-791-11	ELECT	1MF	20%	50V
C3366	1-124-477-11	ELECT	47MF	20%	16V
C3367	1-124-791-11	ELECT	1MF	20%	50V
C3368	1-124-903-11	ELECT	1MF	20%	50V
C3369	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C3370	1-124-443-00	ELECT	100MF	20%	6.3V
C3371	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3372	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C3373	1-124-477-11	ELECT	47MF	20%	16V
C3375	1-124-443-00	ELECT	100MF	20%	6.3V
C3376	1-124-443-00	ELECT	100MF	20%	6.3V
C3377	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C3378	1-163-123-00	CERAMIC CHIP	180PF	5%	50V
C3379	1-164-222-11	CERAMIC CHIP	0.22MF		25V
C3380	1-124-477-11	ELECT	47MF	20%	16V
C3381	1-124-477-11	ELECT	47MF	20%	16V
C3382	1-124-477-11	ELECT	47MF	20%	16V
C3383	1-124-477-11	ELECT	47MF	20%	16V
C3384	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3389	1-126-320-11	ELECT	10MF	20%	16V
C3391	1-126-320-11	ELECT	10MF	20%	16V
C3392	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C3393	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C3394	1-163-095-00	CERAMIC CHIP	12PF	5%	50V
C3395	1-124-477-11	ELECT	47MF	20%	16V
C3396	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C3397	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C3399	1-124-477-11	ELECT	47MF	20%	16V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C3400	1-126-157-11	ELECT	10MF	20%	16V
C3401	1-124-907-11	ELECT	10MF	20%	50V
C3402	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C3403	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V

<CONNECTOR>

CN3301	*1-691-632-11	CONNECTOR, BOARD TO BOARD 15P
CN3302	*1-573-979-11	CONNECTOR, BOARD TO BOARD 11P

<TRIMMER>

CT3301	1-141-245-00	TRIMMER, CERAMIC
CT3304	1-141-245-00	TRIMMER, CERAMIC

<DIODE>

D3301	8-719-800-76	DIODE 1SS226
D3302	8-719-800-76	DIODE 1SS226
D3303	8-719-800-76	DIODE 1SS226
D3304	8-719-800-76	DIODE 1SS226
D3305	8-719-800-76	DIODE 1SS226
D3306	8-719-105-91	DIODE RD5.6M-B2
D3307	8-719-105-91	DIODE RD5.6M-B2
D3308	8-719-800-76	DIODE 1SS226
D3309	8-719-800-76	DIODE 1SS226
D3310	8-719-800-76	DIODE 1SS226
D3311	8-719-800-76	DIODE 1SS226
D3312	8-719-800-76	DIODE 1SS226
D3313	8-719-982-11	DIODE MTZJ-4.3B

<DELAY LINE>

DL3301	1-415-914-11	DELAY LINE
DL3302	1-415-914-11	DELAY LINE

<IC>

IC3301	8-752-058-68	IC CXA1315M
IC3302	8-759-521-22	IC TDA4650/V4
IC3303	8-759-505-39	IC TDA4660V2
IC3304	8-759-009-46	IC MC14528BF
IC3306	8-759-513-48	IC TDA2595/V9
IC3307	8-759-055-51	IC SDA9087XGEG
IC3308	8-759-055-52	IC SDA9089XGEG
IC3309	8-759-046-27	IC SDA9086-3
IC3310	8-759-112-06	IC UPC78N05H
IC3311	8-759-112-06	IC UPC78N05H
IC3312	8-759-009-06	IC MC14052BF
IC3313	8-759-009-10	IC MC14069UBF

<COIL>

L3301	1-408-424-00	INDUCTOR	180UH
L3302	1-408-424-00	INDUCTOR	180UH
L3303	1-404-554-11	COIL	
L3304	1-408-421-00	INDUCTOR	100UH
L3305	1-408-421-00	INDUCTOR	100UH
L3306	1-410-470-11	INDUCTOR	10UH
L3307	1-410-470-11	INDUCTOR	10UH
L3308	1-410-472-41	INDUCTOR	15UH
L3309	1-410-472-41	INDUCTOR	15UH
L3310	1-410-472-41	INDUCTOR	15UH
L3311	1-410-466-41	INDUCTOR	4.7UH

REF.NO.	PART NO.	DESCRIPTION		REMARK
L3312	1-410-470-11	INDUCTOR	10UH	
L3313	1-410-645-31	INDUCTOR	100UH	
L3314	1-410-645-31	INDUCTOR	100UH	

<TRANSISTOR>

Q3301	8-729-901-04	TRANSISTOR DTA114EK
Q3302	8-729-901-04	TRANSISTOR DTA114EK
Q3303	8-729-901-04	TRANSISTOR DTA114EK
Q3304	8-729-901-04	TRANSISTOR DTA114EK
Q3305	8-729-230-49	TRANSISTOR 2SC2712-YG
Q3309	8-729-230-46	TRANSISTOR 2SA1162-YG
Q3310	8-729-230-49	TRANSISTOR 2SC2712-YG
Q3311	8-729-230-49	TRANSISTOR 2SC2712-YG
Q3312	8-729-901-01	TRANSISTOR DTC144EK
Q3313	8-729-901-00	TRANSISTOR DTC124EK
Q3314	8-729-901-01	TRANSISTOR DTC144EK
Q3315	8-729-230-49	TRANSISTOR 2SC2712-YG
Q3316	8-729-230-49	TRANSISTOR 2SC2712-YG
Q3317	8-729-230-46	TRANSISTOR 2SA1162-YG
Q3318	8-729-230-49	TRANSISTOR 2SC2712-YG
Q3319	8-729-230-49	TRANSISTOR 2SC2712-YG
Q3320	8-729-230-49	TRANSISTOR 2SC2712-YG
Q3321	8-729-230-46	TRANSISTOR 2SA1162-YG
Q3322	8-729-901-01	TRANSISTOR DTC144EK
Q3323	8-729-230-49	TRANSISTOR 2SC2712-YG
Q3324	8-729-230-46	TRANSISTOR 2SA1162-YG
Q3325	8-729-230-46	TRANSISTOR 2SA1162-YG
Q3326	8-729-230-49	TRANSISTOR 2SC2712-YG
Q3327	8-729-230-46	TRANSISTOR 2SA1162-YG
Q3328	8-729-230-49	TRANSISTOR 2SC2712-YG
Q3329	8-729-230-49	TRANSISTOR 2SC2712-YG
Q3330	8-729-900-53	TRANSISTOR DTC114EK
Q3331	8-729-900-53	TRANSISTOR DTC114EK
Q3332	8-729-900-53	TRANSISTOR DTC114EK
Q3333	8-729-900-53	TRANSISTOR DTC114EK
Q3334	8-729-900-53	TRANSISTOR DTC114EK
Q3335	8-729-230-49	TRANSISTOR 2SC2712-YG
Q3336	8-729-230-49	TRANSISTOR 2SC2712-YG
Q3337	8-729-230-46	TRANSISTOR 2SA1162-YG
Q3338	8-729-230-46	TRANSISTOR 2SA1162-YG
Q3339	8-729-901-01	TRANSISTOR DTC144EK

<RESISTOR>

R3301	1-216-033-00	METAL GLAZE	220	5%	1/10W
R3302	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R3303	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R3304	1-216-033-00	METAL GLAZE	220	5%	1/10W
R3305	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R3306	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
R3307	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R3308	1-216-047-00	METAL GLAZE	820	5%	1/10W
R3309	1-216-047-00	METAL GLAZE	820	5%	1/10W
R3310	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R3311	1-216-025-00	METAL GLAZE	100	5%	1/10W
R3312	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R3313	1-216-047-00	METAL GLAZE	820	5%	1/10W
R3314	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R3315	1-216-047-00	METAL GLAZE	820	5%	1/10W
R3316	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R3318	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R3319	1-216-041-00	METAL GLAZE	470	5%	1/10W
R3320	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W

BP

REF.NO.	PART NO.	DESCRIPTION				REMARK
R3321	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3322	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3323	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R3324	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R3325	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3326	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R3327	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3328	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R3329	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R3330	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R3331	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R3332	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3333	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3334	1-216-184-00	METAL GLAZE	270	5%	1/8W	
R3335	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3337	1-216-184-00	METAL GLAZE	270	5%	1/8W	
R3338	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R3339	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3341	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R3342	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3343	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R3344	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3345	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R3346	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3347	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R3348	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R3349	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	
R3350	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R3351	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R3352	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R3353	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R3354	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R3355	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R3358	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R3359	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R3360	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3361	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R3362	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3363	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R3364	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3365	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R3366	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R3367	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3368	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3369	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R3370	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R3372	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3373	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R3374	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R3375	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R3376	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3377	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R3378	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3379	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R3380	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3382	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3383	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3384	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3385	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3386	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R3387	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3388	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R3389	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R3390	1-216-049-00	METAL GLAZE	1K	5%	1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R3391	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R3392	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R3393	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3394	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R3395	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R3396	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R3397	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3398	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3399	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R3400	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R3401	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R3402	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R3404	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3406	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R3407	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3408	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3409	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3410	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3411	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3414	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R3415	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3417	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3418	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3419	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3420	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3421	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3422	1-249-484-91	CARBON	6.8	5%	1/2W	F
R3423	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3425	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R3426	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3427	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3428	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R3429	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3430	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3431	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R3432	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3434	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3435	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3436	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3437	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R3438	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3439	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R3443	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3444	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R3445	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R3446	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R3447	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3448	1-216-119-00	METAL GLAZE	820K	5%	1/10W	
R3449	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3450	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R3451	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R3452	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3454	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3455	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3457	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3458	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3459	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3461	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R3462	1-216-101-00	METAL GLAZE	150K	5%	1/10W	

<VARIABLE RESISTOR>

RV3301 1-241-119-11 RES, ADJ, CARBON 1K

REF.NO.	PART NO.	DESCRIPTION	REMARK
RV3302	1-241-632-11	RES, ADJ, CARBON 47K	

<TRANSFORMER>

T3301	1-404-584-11	COIL	

<CRYSTAL>

X3301	1-567-413-11	VIBRATOR, CRYSTAL	
X3304	1-527-789-00	VINRATOR, CRYSTAL	
X3305	1-577-360-11	VIBRATOR, CERAMIC	

****

*A-1135-741-A B BOARD, COMPLETE
****
(KV-S29JN1,S29MN1,S29SN1)

*A-1135-718-A B BOARD, COMPLETE
****
(KV-S34JN1,S34MN1,S34SN1)

1-402-699-11 DELAY LINE

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			REMARK
C301	1-124-907-11	ELECT	10MF	20%	50V
C302	1-124-482-11	ELECT	33MF	20%	25V
C303	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C304	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C305	1-124-478-11	ELECT	100MF	20%	25V
C306	1-124-477-11	ELECT	47MF	20%	16V
C307	1-124-903-11	ELECT	1MF	20%	50V
C308	1-124-903-11	ELECT	1MF	20%	50V
C309	1-126-233-11	ELECT	22MF	20%	25V
C310	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C311	1-124-907-11	ELECT	10MF	20%	50V
C312	1-124-034-51	ELECT	33MF	20%	16V
C313	1-124-478-11	ELECT	100MF	20%	25V
C314	1-126-233-11	ELECT	22MF	20%	25V
C315	1-124-907-11	ELECT	10MF	20%	50V
C316	1-126-233-11	ELECT	22MF	20%	25V
C317	1-124-477-11	ELECT	47MF	20%	16V
C318	1-124-907-11	ELECT	10MF	20%	50V
C319	1-124-907-11	ELECT	10MF	20%	50V
C320	1-124-034-51	ELECT	33MF	20%	16V
C321	1-124-907-11	ELECT	10MF	20%	50V
C322	1-124-903-11	ELECT	1MF	20%	50V
C323	1-124-910-11	ELECT	47MF	20%	50V
C324	1-124-907-11	ELECT	10MF	20%	50V
C325	1-126-233-11	ELECT	22MF	20%	25V
C326	1-126-233-11	ELECT	22MF	20%	25V
C327	1-126-233-11	ELECT	22MF	20%	25V
C328	1-124-907-11	ELECT	10MF	20%	50V
C329	1-124-120-11	ELECT	220MF	20%	16V
C330	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C331	1-126-103-11	ELECT	470MF	20%	16V
C332	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C333	1-126-103-11	ELECT	470MF	20%	16V
C334	1-124-902-00	ELECT	0.47MF	20%	50V
C335	1-124-902-00	ELECT	0.47MF	20%	50V
C336	1-124-907-11	ELECT	10MF	20%	50V
C338	1-124-907-11	ELECT	10MF	20%	50V
C339	1-124-907-11	ELECT	10MF	20%	50V
C340	1-126-101-11	ELECT	100MF	20%	16V
C341	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C342	1-126-157-11	ELECT	10MF	20%	16V
C343	1-126-101-11	ELECT	100MF	20%	16V
C344	1-126-320-11	ELECT	10MF	20%	16V
C346	1-124-902-00	ELECT	0.47MF	20%	50V
C347	1-124-902-00	ELECT	0.47MF	20%	50V
C348	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C350	1-124-903-11	ELECT	1MF	20%	50V
C351	1-124-902-00	ELECT	0.47MF	20%	50V
C352	1-136-489-81	FILM	0.022MF	5%	50V
C353	1-163-033-00	CERAMIC CHIP	0.022MF		50V
C354	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C355	1-124-903-11	ELECT	1MF	20%	50V
C356	1-126-103-11	ELECT	470MF	20%	16V
C357	1-136-493-81	FILM	0.047MF	5%	50V
C358	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C359	1-136-171-00	FILM	0.33MF	5%	50V
C360	1-124-907-11	ELECT	10MF	20%	50V
C361	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C362	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C363	1-216-037-00	METAL GLAZE	330	5%	1/10W
C364	1-136-497-81	FILM	0.1MF	5%	50V
C365	1-124-477-11	ELECT	47MF	20%	16V
C366	1-124-907-11	ELECT	10MF	20%	50V
C367	1-216-037-00	METAL GLAZE	330	5%	1/10W
C368	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C369	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C370	1-136-489-81	FILM	0.022MF	5%	50V
C371	1-124-907-11	ELECT	10MF	20%	50V
C372	1-136-497-81	FILM	0.1MF	5%	50V
C373	1-136-489-81	FILM	0.022MF	5%	50V
C374	1-136-497-81	FILM	0.1MF	5%	50V
C375	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C376	1-124-902-00	ELECT	0.47MF	20%	50V
C377	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C378	1-124-477-11	ELECT	47MF	20%	25V
C379	1-163-123-00	CERAMIC CHIP	180PF	5%	50V
C380	1-124-907-11	ELECT	10MF	20%	50V
C381	1-102-129-00	CERAMIC	0.01MF	10%	50V
C382	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C383	1-124-790-11	ELECT	0.47MF	20%	100V
C384	1-124-902-00	ELECT	0.47MF	20%	50V
C385	1-124-902-00	ELECT	0.47MF	20%	50V
C386	1-136-497-81	FILM	0.1MF	5%	50V
C387	1-124-902-00	ELECT	0.47MF	20%	50V
C388	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C389	1-136-497-81	FILM	0.1MF	5%	50V
C390	1-124-910-11	ELECT	47MF	20%	50V
C391	1-124-902-00	ELECT	0.47MF	20%	50V
C392	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C393	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C394	1-163-025-11	CERAMIC CHIP	0.001MF		50V
C395	1-136-153-00	FILM	0.01MF	5%	50V
C396	1-124-902-00	ELECT	0.47MF	20%	50V
C397	1-136-169-00	FILM	0.22MF	5%	50V
			(KV-S29JN1,S29MN 1,S29SN1)		
	1-136-497-81	FILM	0.1MF	5%	50V
			(KV-S34JN1,S34MN 1,S34SN1)		
C398	1-163-025-11	CERAMIC CHIP	0.001MF		50V
C399	1-136-165-00	FILM	0.1MF	5%	50V
C400	1-124-034-51	ELECT	33MF	20%	16V
C401	1-124-902-00	ELECT	0.47MF	20%	50V
C402	1-124-556-11	ELECT	2200MF	20%	16V
C403	1-124-910-11	ELECT	47MF	20%	50V
C404	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V

B

REF.NO.	PART NO.	DESCRIPTION				REMARK
C405	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C406	1-136-169-00	FILM	0.22MF	5%	50V	
			(KV-S29JN1,S29MN1,S29SN1)			
	1-136-497-81	FILM	0.1MF	5%	50V	
			(KV-S34JN1,S34MN1,S34SN1)			
C407	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C408	1-126-101-11	ELECT	100MF	20%	16V	
C409	1-136-169-00	FILM	0.22MF	5%	50V	
			(KV-S29JN1,S29MN1,S29SN1)			
	1-136-497-81	FILM	0.1MF	5%	50V	
			(KV-S34JN1,S34MN1,S34SN1)			
C410	1-137-190-51	FILM	0.22MF	5%	50V	
C411	1-124-903-11	ELECT	1MF	20%	50V	
C412	1-136-153-00	FILM	0.01MF	5%	50V	
C413	1-126-101-11	ELECT	100MF	20%	16V	
C414	1-130-479-00	MYLAR	0.0047MF	5%	50V	
C415	1-136-175-00	FILM	0.68MF	5%	50V	
C416	1-136-153-00	FILM	0.01MF	5%	50V	
C417	1-163-157-00	FILM	0.022MF	5%	50V	
C418	1-124-927-11	ELECT	4.7MF	20%	50V	
C419	1-163-077-00	CERAMIC CHIP	0.1MF	10%	25V	
C422	1-124-902-00	ELECT	0.47MF	20%	50V	
C423	1-124-902-00	ELECT	0.47MF	20%	50V	
C424	1-124-463-00	ELECT	0.1MF	20%	50V	
C425	1-126-530-11	ELECT	22MF	20%	50V	
C426	1-126-101-11	ELECT	100MF	20%	16V	
C427	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C428	1-136-497-81	FILM	0.1MF	5%	50V	
C429	1-126-101-11	ELECT	100MF	20%	16V	
C430	1-126-101-11	ELECT	100MF	20%	16V	
C434	1-101-880-00	CERAMIC	47PF	5%	50V	
C438	1-124-477-11	ELECT	47MF	20%	16V	
C439	1-126-101-11	ELECT	100MF	20%	16V	
C440	1-124-903-11	ELECT	1MF	20%	50V	
C441	1-124-907-11	ELECT	10MF	20%	50V	
C442	1-124-927-11	ELECT	4.7MF	20%	50V	
C443	1-163-133-00	CERAMIC CHIP	470PF	5%	50V	
C444	1-124-902-00	ELECT	0.47MF	20%	50V	
C445	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C446	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C447	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C450	1-124-902-00	ELECT	0.47MF	20%	50V	
C452	1-102-959-00	CERAMIC	22PF	5%	50V	

<CONNECTOR>

CN301	*1-573-962-11	CONNECTOR (MALE) 50P
CN302	*1-564-509-11	PLUG, CONNECTOR 6P
CN303	*1-573-962-11	CONNECTOR (MALE) 50P
CN305	*1-564-516-11	PLUG, CONNECTOR 13P
CN306	*1-564-513-11	PLUG, CONNECTOR 10P
CN307	*1-564-514-11	PLUG, CONNECTOR 11P
CN308	*1-565-930-11	CONNECTOR (RECEPTACLE) 30P
CN309	*1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)

<TRIMMER>

CT303	1-141-245-00	TRIMMER, CERAMIC
CT304	1-141-245-00	TRIMMER, CERAMIC

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D301	8-719-400-75	DIODE MA3091	
D302	8-719-400-75	DIODE MA3091	
D303	8-719-400-75	DIODE MA3091	
D304	8-719-400-75	DIODE MA3091	
D305	8-719-400-75	DIODE MA3091	
D306	8-719-400-51	DIODE MA3062	
D307	8-719-400-51	DIODE MA3062	
D308	8-719-800-76	DIODE 1SS226	
D309	8-719-800-76	DIODE 1SS226	
D310	8-719-800-76	DIODE 1SS226	
D311	8-719-800-76	DIODE 1SS226	
D312	8-719-800-76	DIODE 1SS226	
D313	8-719-800-76	DIODE 1SS226	
D314	8-719-800-76	DIODE 1SS226	
D315	8-719-105-91	DIODE RD5.6M-B2	
D317	8-719-400-84	DIODE MA3110	
D318	8-719-400-84	DIODE MA3110	
D319	8-719-400-84	DIODE MA3110	
D320	8-719-400-84	DIODE MA3110	
D322	8-719-800-76	DIODE 1SS226	
D323	8-719-105-91	DIODE RD5.6M-B2	
D324	8-719-800-76	DIODE 1SS226	
D328	8-719-800-76	DIODE 1SS226	
D329	8-719-800-76	DIODE 1SS226	
D330	8-719-800-76	DIODE 1SS226	
D331	8-719-800-76	DIODE 1SS226	
D332	8-719-800-76	DIODE 1SS226	
D333	8-719-800-76	DIODE 1SS226	
D334	8-719-800-76	DIODE 1SS226	
D335	8-719-400-46	DIODE MA3056-L	
D336	8-719-800-76	DIODE 1SS226	
D337	8-719-800-76	DIODE 1SS226	
D338	8-719-800-76	DIODE 1SS226	
D339	8-719-800-76	DIODE 1SS226	
D340	8-719-800-76	DIODE 1SS226	
D341	8-719-800-76	DIODE 1SS226	
D427	8-719-800-76	DIODE 1SS226	
D428	8-719-800-76	DIODE 1SS226	
D429	8-719-800-76	DIODE 1SS226	
D430	8-719-800-76	DIODE 1SS226	
D431	8-719-800-76	DIODE 1SS226	
D432	8-719-800-76	DIODE 1SS226	
D433	8-719-800-76	DIODE 1SS226	
D434	8-719-800-76	DIODE 1SS226	
D435	8-719-800-76	DIODE 1SS226	
D436	8-719-800-76	DIODE 1SS226	
D437	8-719-800-76	DIODE 1SS226	
D439	8-719-800-76	DIODE 1SS226	
D442	8-719-800-76	DIODE 1SS226	
D448	8-719-800-76	DIODE 1SS226	
D450	8-719-800-76	DIODE 1SS226	
D451	8-719-106-44	DIODE RD9.1M-B2	
D452	8-719-106-44	DIODE RD9.1M-B2	
D453	8-719-106-44	DIODE RD9.1M-B2	

<DELAY LINE>

DL301	1-415-914-11	DELAY LINE

<IC>

IC301	8-752-056-50	IC CXA1545S
IC302	8-759-008-67	IC MC14066BF
IC303	8-752-058-68	IC CXA1315M
IC304	8-759-008-67	IC MC14066BF
IC305	8-752-012-52	IC CX20125

B

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC306	8-759-800-81	IC LA7016	
IC307	8-752-037-15	IC CXA1387S	
IC308	8-759-009-06	IC MC14052BF	
IC309	8-759-011-65	IC MC74HC4053F	
IC310	8-759-009-06	IC MC14052BF	
IC311	8-759-013-86	IC MC74HC4066F	
IC312	8-759-013-86	IC MC74HC4066F	
IC313	8-759-800-81	IC LA7016	
IC314	8-759-802-23	IC L780S12	
	4-382-854-11	SCREW (M3X10), P, SW (+); IC314	
IC315	8-759-521-22	IC TDA4650/V4	
IC316	8-759-505-39	IC TDA4660V2	
IC317	8-759-009-46	IC MC14528BF	
IC318	8-759-517-43	IC TDA4580-V7	
IC319	8-759-909-70	IC CX23025	
IC320	8-759-513-48	IC TDA2595/V9	
IC321	8-759-011-65	IC MC74HC4053F	
IC322	8-759-800-81	IC LA7016	
		<COIL>	
L301	1-410-473-11	INDUCTOR 18UH	
L302	1-410-473-11	INDUCTOR 18UH	
L303	1-410-667-31	INDUCTOR 22UH	
L304	1-404-554-11	COIL	
L305	1-410-466-41	INDUCTOR 4.7UH	
L306	1-408-421-00	INDUCTOR 100UH	
L307	1-408-421-00	INDUCTOR 100UH	
L308	1-410-466-41	INDUCTOR 4.7UH	
L309	1-410-466-41	INDUCTOR 4.7UH	
L310	1-410-466-41	INDUCTOR 4.7UH	
L311	1-410-466-41	INDUCTOR 4.7UH	
L312	1-408-417-00	INDUCTOR 47UH	
		<TRANSISTOR>	
Q301	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q302	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q303	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q304	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q305	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q306	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q307	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q308	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q309	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q310	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q311	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q312	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q313	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q314	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q315	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q316	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q317	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q318	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q319	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q320	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q321	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q322	8-729-901-00	TRANSISTOR DTC124EK	
Q323	8-729-901-00	TRANSISTOR DTC124EK	
Q324	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q325	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q326	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q327	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q328	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q329	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q330	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q331	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q332	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q333	8-729-900-89	TRANSISTOR DTC144ES	
Q335	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q336	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q337	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q338	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q339	8-729-900-53	TRANSISTOR DTC114EK	
Q340	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q341	8-729-900-53	TRANSISTOR DTC114EK	
Q342	8-729-900-53	TRANSISTOR DTC114EK	
Q343	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q344	8-729-900-53	TRANSISTOR DTC114EK	
Q345	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q346	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q347	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q348	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q349	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q350	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q351	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q354	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q356	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q357	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q358	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q359	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q360	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q361	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q362	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q365	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q366	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q367	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q368	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q369	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q370	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q371	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q372	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q373	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q374	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q375	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q376	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q377	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q378	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q379	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q380	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q381	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q382	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q385	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q386	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q387	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q389	8-729-901-04	TRANSISTOR DTA114EK	
Q390	8-729-901-04	TRANSISTOR DTA114EK	
Q391	8-729-901-04	TRANSISTOR DTA114EK	
Q392	8-729-901-04	TRANSISTOR DTA114EK	
Q393	8-729-900-53	TRANSISTOR DTC114EK	
Q394	8-729-900-53	TRANSISTOR DTC114EK	
Q395	8-729-900-53	TRANSISTOR DTC114EK	
Q396	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q397	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q398	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q399	8-729-230-49	TRANSISTOR 2SC2712-YG	

B

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q400	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q401	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q402	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q403	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q404	8-729-808-36	TRANSISTOR 2SK669	
Q405	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q406	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q407	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q408	8-729-900-53	TRANSISTOR DTC114EK	
Q409	8-729-901-01	TRANSISTOR DTC144EK	
Q410	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q441	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q442	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q443	8-729-230-49	TRANSISTOR 2SC2712-YG	
		<RESISTOR>	
R301	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R302	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R303	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R304	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R305	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R306	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R307	1-216-035-00	METAL GLAZE 270 5% 1/10W	
R308	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R309	1-216-035-00	METAL GLAZE 270 5% 1/10W	
R310	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R311	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R312	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R313	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R314	1-220-269-91	METAL GLAZE 330 5% 1/2W	
R315	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R316	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R317	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R318	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R319	1-220-269-91	METAL GLAZE 330 5% 1/2W	
R320	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R321	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R322	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R323	1-220-269-91	METAL GLAZE 330 5% 1/2W	
R324	1-216-035-00	METAL GLAZE 270 5% 1/10W	
R325	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R326	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R327	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R328	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R329	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R330	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R331	1-216-035-00	METAL GLAZE 270 5% 1/10W	
R332	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R333	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R334	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R335	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R336	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R337	1-220-269-91	METAL GLAZE 330 5% 1/2W	
R338	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R339	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R340	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R341	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R342	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R343	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R344	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R345	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R346	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R347	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R348	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R349	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R350	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R351	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R352	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R353	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R354	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R355	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R356	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R357	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R358	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R359	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R360	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R361	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R362	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R363	1-216-111-00	METAL GLAZE 390K 5% 1/10W	
R364	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R365	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R366	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R367	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R368	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R369	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R370	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R371	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R372	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R373	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R374	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R375	1-216-035-00	METAL GLAZE 270 5% 1/10W	
R376	1-216-035-00	METAL GLAZE 270 5% 1/10W	
R377	1-216-035-00	METAL GLAZE 270 5% 1/10W	
R378	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R379	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R380	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R381	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R383	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R384	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R385	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W	
R386	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R387	1-216-091-00	METAL GLAZE 56K 5% 1/10W	
R388	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R389	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R390	1-259-880-11	CARBON 2.2M 5% 1/4W	
R391	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R392	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R393	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R394	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R395	1-216-039-00	METAL GLAZE 390 5% 1/10W	
R396	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R397	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
R398	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R399	1-216-047-00	METAL GLAZE 820 5% 1/10W	
R400	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R401	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R402	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R403	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R404	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R405	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R406	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R407	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R408	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R409	1-216-021-00	METAL GLAZE 68 5% 1/10W	
R410	1-216-021-00	METAL GLAZE 68 5% 1/10W	
R411	1-216-021-00	METAL GLAZE 68 5% 1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R412	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R413	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R414	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R415	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R417	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R418	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R419	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R420	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R421	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R422	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R423	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R424	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R425	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R426	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R427	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R428	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R429	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R430	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R431	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R433	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R434	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R435	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R436	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R437	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R438	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R439	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R440	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R441	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R442	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R443	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R444	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R445	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R446	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R447	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R448	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R449	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R451	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R452	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R453	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R454	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R455	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R456	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R457	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R458	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R459	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R460	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R461	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R462	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R463	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R464	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R465	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R466	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R467	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R468	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R469	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R470	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R471	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R472	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R473	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R474	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R475	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R476	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R477	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R478	1-216-035-00	METAL GLAZE	270	5%	1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R479	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R480	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R481	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R483	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R484	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R485	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R486	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R487	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R489	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R491	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	
R492	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	
R494	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R495	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R496	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R497	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R498	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R499	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R500	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R501	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R502	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R503	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R504	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R505	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R506	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R507	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R508	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R509	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R510	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R511	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R512	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R513	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R514	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R515	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R516	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R517	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R518	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R519	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R520	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R521	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R522	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R523	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R524	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R525	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R526	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R527	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R528	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R529	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R530	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R531	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R532	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R534	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R535	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R536	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R537	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R538	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R539	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R540	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R541	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R542	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R543	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R544	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R545	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R546	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	

B **B1**

REF.NO.	PART NO.	DESCRIPTION				REMARK
R547	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R548	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R549	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R550	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R551	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R552	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R553	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R554	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R555	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R556	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R557	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R558	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R559	1-216-695-11	METAL CHIP	68K	0.50%	1/10W	
R560	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R561	1-216-619-11	METAL CHIP	47	0.50%	1/10W	
R562	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R563	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R564	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R565	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R569	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R570	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R572	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R573	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R574	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R575	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R576	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R578	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R579	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R580	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R581	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R588	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R589	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R590	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R591	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R592	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R593	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R594	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R595	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R596	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R597	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R598	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R599	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R600	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R601	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R602	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R603	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R604	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R605	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R606	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R607	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R608	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R609	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R610	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R611	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R612	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R613	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R614	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R615	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R616	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R618	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R619	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R620	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R621	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R622	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R623	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R624	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R625	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R627	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R628	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R629	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R630	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R631	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R632	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R633	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R634	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R635	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R636	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R637	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R638	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R639	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R640	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R641	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R642	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R643	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R644	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R645	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R646	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R647	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R648	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R649	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R650	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R651	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R653	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R654	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R655	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R657	1-216-049-00	METAL GLAZE	1K	5%	1/10W	

<VARIABLE RESISTOR>

RV301	1-241-119-11	RES, ADJ, CARBON 1K
RV302	1-241-632-11	RES, ADJ, CARBON 47K

<TRANSFORMER>

T301	1-404-584-11	COIL

<CRYSTAL>

X303	1-527-789-00	VINRATOR, CRYSTAL
X304	1-567-413-11	VIBRATOR, CRYSTAL

<MODULE>

YCM301	1-239-356-11	MODULE, TRAP

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*A-1135-719-A B1 BOARD, COMPLETE
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4-382-854-11 SCREW (M3X10), P, SW (+)

<CAPACITOR>

C2501	1-126-101-11	ELECT	100MF	20%	16V
C2502	1-124-122-11	ELECT	100MF	20%	50V
C2503	1-124-907-11	ELECT	10MF	20%	50V
C2504	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C2505	1-124-477-11	ELECT	47MF	20%	16V
C2506	1-124-907-11	ELECT	10MF	20%	50V
C2507	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C2508	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C2511	1-126-101-11	ELECT	100MF	20%	16V
C2512	1-124-925-11	ELECT	2.2MF	20%	50V
C2513	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C2514	1-124-902-00	ELECT	0.47MF	20%	50V
C2515	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2516	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C2517	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C2518	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C2519	1-126-101-11	ELECT	100MF	20%	16V
C2520	1-126-101-11	ELECT	100MF	20%	16V
C2521	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2522	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2523	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C2524	1-124-443-00	ELECT	100MF	20%	10V
C2525	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C2526	1-126-101-11	ELECT	100MF	20%	16V
C2527	1-124-907-11	ELECT	10MF	20%	50V
C2528	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C2529	1-124-472-11	ELECT	470MF	20%	10V
C2530	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2531	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C2532	1-124-907-11	ELECT	10MF	20%	50V
C2533	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2534	1-124-907-11	ELECT	10MF	20%	50V
C2535	1-124-907-11	ELECT	10MF	20%	50V
C2536	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2537	1-124-443-00	ELECT	100MF	20%	10V
C2538	1-124-907-11	ELECT	10MF	20%	50V
C2539	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2540	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C2541	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
C2542	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2543	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2544	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2545	1-124-472-11	ELECT	470MF	20%	10V
C2546	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C2547	1-126-101-11	ELECT	100MF	20%	16V
C2548	1-124-472-11	ELECT	470MF	20%	10V
C2549	1-101-880-00	CERAMIC	47PF	5%	50V
C2550	1-136-497--B	FILM	0.1MF	5%	50V
C2551	1-126-101-11	ELECT	100MF	20%	16V
C2552	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V

<CONNECTOR>

CN2501*	1-564-516-11	PLUG, CONNECTOR 13P

<TRIMMER>

CV2501	1-141-245-00	TRIMMER, CERAMIC
CV2502	1-141-245-00	TRIMMER, CERAMIC

<DIODE>

D2501	8-719-800-76	DIODE 1SS226
D2503	8-719-800-76	DIODE 1SS226

<FILTER>

REF.NO.	PART NO.	DESCRIPTION	REMARK
FL2501	1-236-164-11	ENCAPSULATED COMPONENT	
FL2502	1-236-164-11	ENCAPSULATED COMPONENT	
FL2503	1-236-620-11	FILTER, LOW PASS	
FL2504	1-236-620-11	FILTER, LOW PASS	
FL2505	1-236-620-11	FILTER, LOW PASS	

<IC>

IC2501	8-752-062-80	IC CXA1686M
IC2502	8-741-692-01	IC SBX1692-01
IC2503	8-759-802-18	IC L780S05

<COIL>

L2501	1-410-484-11	INDUCTOR	150UH
L2502	1-410-466-41	INDUCTOR	4.7UH
L2503	1-410-466-41	INDUCTOR	4.7UH
L2505	1-410-466-41	INDUCTOR	4.7UH

<TRANSISTOR>

Q2501	8-729-230-49	TRANSISTOR 2SC2712-YG
Q2502	8-729-230-49	TRANSISTOR 2SC2712-YG
Q2503	8-729-230-49	TRANSISTOR 2SC2712-YG
Q2504	8-729-230-49	TRANSISTOR 2SC2712-YG
Q2505	8-729-230-49	TRANSISTOR 2SC2712-YG
Q2506	8-729-230-46	TRANSISTOR 2SA1162-YG
Q2507	8-729-230-46	TRANSISTOR 2SA1162-YG
Q2510	8-729-901-00	TRANSISTOR DTC124EK
Q2511	8-729-230-46	TRANSISTOR 2SA1162-YG
Q2512	8-729-230-49	TRANSISTOR 2SC2712-YG
Q2513	8-729-230-49	TRANSISTOR 2SC2712-YG
Q2514	8-729-230-46	TRANSISTOR 2SA1162-YG
Q2515	8-729-230-46	TRANSISTOR 2SA1162-YG
Q2516	8-729-230-49	TRANSISTOR 2SC2712-YG
Q2517	8-729-901-01	TRANSISTOR DTC144EK
Q2518	8-729-230-49	TRANSISTOR 2SC2712-YG
Q2519	8-729-230-49	TRANSISTOR 2SC2712-YG
Q2520	8-729-230-49	TRANSISTOR 2SC2712-YG

<RESISTOR>

R2501	1-216-037-00	METAL GLAZE	330	5%	1/10W
R2502	1-216-035-00	METAL GLAZE	270	5%	1/10W
R2503	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R2504	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R2505	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R2506	1-216-037-00	METAL GLAZE	330	5%	1/10W
R2507	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R2508	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R2509	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
R2510	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R2511	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R2512	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R2513	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R2514	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R2515	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R2516	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R2517	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R2518	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R2519	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R2520	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W
R2521	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R2522	1-216-039-00	METAL GLAZE	390	5%	1/10W
R2523	1-216-049-00	METAL GLAZE	1K	5%	1/10W

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R2524	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R2525	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R2526	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R2527	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R2530	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R2531	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R2533	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2534	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R2535	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2536	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R2537	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2538	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R2539	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R2540	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R2541	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2542	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R2543	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R2544	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R2545	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R2546	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R2547	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R2548	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R2549	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2550	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2551	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R2552	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2553	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R2554	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R2555	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R2556	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R2557	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R2558	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R2559	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R2560	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2561	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2562	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2564	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2565	1-216-295-00	METAL GLAZE	0	5%	1/10W	

<CRYSTAL>

REF.NO.	PART NO.	DESCRIPTION
X2501	1-527-722-00	OSCILLATOR, CRYSTAL
X2502	1-579-057-11	VIBRATOR, CRYSTAL
X2503	1-577-611-11	OSCILALTOR, CERAMIC

****

*A-1195-056-A F BOARD, COMPLETE
****

PART NO.	DESCRIPTION
1-533-223-11	CLIP, FUSE
*4-341-751-01	EYELET (EY100~EY175)
*4-341-752-01	EYELET (EY1~EY8,EY10~EY40)
4-363-414-00	SPACER, MICA
4-382-854-11	SCREW (M3X10), P, SW (+)

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C601	⚠.1-136-548-13	FILM	0.1MF	20%	250V	
C603	⚠.1-161-830-51	CERAMIC	0.0047MF		500V	
C604	⚠.1-161-830-51	CERAMIC	0.0047MF		500V	
C605	⚠.1-161-830-51	CERAMIC	0.0047MF		500V	
C606	⚠.1-161-830-51	CERAMIC	0.0047MF		500V	
C607	1-137-571-91	FILM	0.1MF	5%	50V	
C608	1-136-197-61	FILM	0.047MF	10%	400V	
C609	1-126-406-11	ELECT	2.2MF	20%	400V	
C610	1-124-514-11	ELECT	100MF	20%	50V	
C611	1-137-571-91	FILM	0.1MF	5%	50V	
C612	1-104-350-11	ELECT	1000MF	20%	250V	
C613	1-104-350-11	ELECT	1000MF	20%	250V	
C614	1-164-644-11	CERAMIC	330PF	10%	500V	
C615	1-164-644-11	CERAMIC	330PF	10%	500V	
C616	1-136-175-00	FILM	0.068MF	5%	50V	
C617	1-136-173-00	FILM	0.47MF	5%	50V	
C618	1-136-175-00	FILM	0.068MF	5%	50V	
C619	1-136-173-00	FILM	0.47MF	5%	50V	
C620	1-164-644-11	CERAMIC	330PF	10%	500V	
C621	1-162-318-11	CERAMIC	0.001MF	10%	500V	
C622	1-137-234-11	FILM	0.0068MF	5%	1.25KV	
C623	1-137-233-11	FILM	0.0056MF	5%	1.25KV	
C624	1-137-233-11	FILM	0.0056MF	5%	1.25KV	
C625	1-124-907-11	ELECT	10MF	20%	50V	
C626	1-126-803-11	ELECT	47MF	20%	50V	
C627	1-126-183-11	ELECT	1000MF	20%	16V	
C628	1-124-602-00	ELECT	2200MF	20%	25V	
C629	1-126-101-11	ELECT	100MF	20%	16V	
C630	1-136-173-00	FILM	0.47MF	5%	50V	
C631	1-124-443-00	ELECT	100MF	20%	10V	
C632	1-124-442-00	ELECT	330MF	20%	6.3V	
C633	1-126-540-91	ELECT	220MF	20%	6.3V	
C634	1-124-607-11	ELECT	2200MF	20%	50V	
C635	1-124-480-11	ELECT	470MF	20%	25V	
C636	1-126-803-11	ELECT	47MF	20%	50V	
C637	1-126-103-11	ELECT	470MF	20%	16V	
C639	1-162-117-00	CERAMIC	100PF	10%	500V	
C640	1-126-356-11	ELECT	220MF	20%	160V	
C641	1-124-119-00	ELECT	330MF	20%	16V	
C642	1-102-228-00	CERAMIC	470PF	10%	500V	
C643	1-130-479-00	MYLAR	0.0047MF	5%	50V	
C644	1-130-491-00	MYLAR	0.047MF	5%	50V	
C645	1-124-443-00	ELECT	100MF	20%	10V	
C646	1-124-443-00	ELECT	100MF	20%	10V	
C647	1-126-101-11	ELECT	100MF	20%	16V	
C648	1-126-101-11	ELECT	100MF	20%	16V	
C649	⚠.1-164-497-51	CERAMIC	470PF	20%	400V	
	*4-374-846-11	COVER, CAPACITOR, CAP TYPE; C649				
C650	1-124-480-11	ELECT	470MF	20%	25V	
C651	1-130-471-00	MYLAR	0.001MF	5%	50V	
C652	1-136-497-81	FILM	0.1MF	5%	50V	
C654	1-137-354-11	FILM	0.01MF	5%	100V	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION
CN601	*1-564-510-11	PLUG, CONNECTOR 7P
CN602	*1-564-512-11	PLUG, CONNECTOR 9P
CN603	*1-573-986-11	PIN, CONNECTOR (PC BOARD) 5P
CN604	*1-580-843-11	PIN, CONNECTOR (POWER)
CN605	*1-573-963-11	PIN, CONNECTOR (PC BOARD) 3P
CN606	*1-573-963-11	PIN, CONNECTOR (PC BOARD) 3P
CN607	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P
CN608	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P

<DIODE>

REF.NO.	PART NO.	DESCRIPTION
D601	8-719-510-53	DIODE D4SB60L
D602	⚠.8-719-304-63	DIODE RM11C
D603	8-719-510-48	DIODE D1N20R
D604	8-719-510-48	DIODE D1N20R
D605	8-719-510-48	DIODE D1N20R

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
D606	8-719-510-48	DIODE D1N20R	
D607	8-719-911-19	DIODE 1SS119	
D608	8-719-510-26	DIODE D1NL20	
D609	8-719-510-12	DIODE D10SC4M	
D610	8-719-510-12	DIODE D10SC4M	
D611	8-719-510-04	DIODE S3LA20F	
D612	8-719-510-04	DIODE S3LA20F	
D613	8-719-911-19	DIODE 1SS119	
D614	8-719-510-04	DIODE S3LA20F	
D615	8-719-911-19	DIODE 1SS119	
D616	8-719-510-26	DIODE D1NL20	
D617	8-719-510-26	DIODE D1NL20	
D618	8-719-510-04	DIODE S3LA20F	
D619	8-719-510-04	DIODE S3LA20F	
D620	8-719-911-19	DIODE 1SS119	
D621	8-719-109-54	DIODE RD2.2ES-B1	
D622	8-719-110-03	DIODE RD7.5ES-B2	
D623	8-719-110-03	DIODE RD7.5ES-B2	
D624	8-719-110-17	DIODE RD10ES-B2	
D625	8-719-110-08	DIODE RD8.2ES-B2	
D626	8-719-108-18	THYRISTOR 5P6M	
D627	8-719-911-19	DIODE 1SS119	
D628	8-719-911-19	DIODE 1SS119	
D629	8-719-110-08	DIODE RD8.2ES-B2	
D630	8-719-911-19	DIODE 1SS119	
D631	8-719-110-18	DIODE RD10ES-B3	
D632	8-719-510-04	DIODE S3LA20F	
D633	8-719-510-26	DIODE D1NL20	
D634	8-719-911-19	DIODE 1SS119	
D660	8-719-510-26	DIODE D1NL20	

<FUSE>

F601 ⚠	1-532-350-11	FUSE, TIME-LAG 4A/250V	

<FERRITE BEAD>

FB601	1-412-911-11	INDUCTOR, FERRITE BEAD	
FB602	1-412-911-11	INDUCTOR, FERRITE BEAD	
FB605	1-412-911-11	INDUCTOR, FERRITE BEAD	
FB606	1-412-911-11	INDUCTOR, FERRITE BEAD	
FB607	1-412-911-11	INDUCTOR, FERRITE BEAD	
FB608	1-412-911-11	INDUCTOR, FERRITE BEAD	

<IC>

IC601 ⚠	8-749-921-67	IC STR80145A	
IC602	8-759-929-62	IC LM7812CT	
IC603 ⚠	1-809-524-11	MODULE, POWER DM-44	
IC604	8-759-929-62	IC LM7812CT	
IC605	8-759-701-59	IC NJM78M09FA	

<COIL>

L601	1-412-531-31	INDUCTOR	33UH	
L602	1-412-533-11	INDUCTOR	47UH	
L604	1-412-525-31	INDUCTOR	10UH	
L608	1-412-533-11	INDUCTOR	47UH	
L609	1-412-528-11	INDUCTOR	18UH	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q601	8-729-015-59	TRANSISTOR 2SC4834N	
Q602	8-729-015-59	TRANSISTOR 2SC4834N	
Q603	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q604	8-729-209-15	TRANSISTOR 2SD2012	
Q605	8-729-209-15	TRANSISTOR 2SD2012	
Q606	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q607	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q608	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q609	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q610	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q611	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q612	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q613	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q614	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q615	8-729-900-89	TRANSISTOR DTC144ES	

<RESISTOR>

R601	1-205-922-11	WIREWOUND	5.6	5%	7W	
R603	1-260-300-71	CARBON	4.7	5%	1/2W	
R604	1-214-925-00	CARBON	330K	5%	1/2W	
R605	1-214-925-00	CARBON	330K	5%	1/2W	
R606 ⚠	1-202-933-61	FUSIBLE	0.1	10%	1/2W	F
R607	1-215-857-11	METAL OXIDE	10	5%	1W	F
R608	1-215-857-11	METAL OXIDE	10	5%	1W	F
R609	1-216-468-11	METAL OXIDE	82K	5%	2W	F
R610	1-216-468-11	METAL OXIDE	82K	5%	2W	F
R611	1-216-369-00	METAL OXIDE	1	5%	2W	F
R612	1-216-369-00	METAL OXIDE	1	5%	2W	F
R613	1-215-857-11	METAL OXIDE	10	5%	1W	F
R614	1-249-424-11	CARBON	3.9K	5%	1/4W	
R615	1-249-416-11	CARBON	820	5%	1/4W	F
R616	1-249-416-11	CARBON	820	5%	1/4W	F
R617	1-249-429-11	CARBON	10K	5%	1/4W	
R620	1-249-381-11	CARBON	1	5%	1/4W	F
R621	1-249-381-11	CARBON	1	5%	1/4W	F
R622	1-249-381-11	CARBON	1	5%	1/4W	F
R623	1-249-397-11	CARBON	22	5%	1/4W	
R624	1-249-424-11	CARBON	3.9K	5%	1/4W	
R625	1-249-423-11	CARBON	3.3K	5%	1/4W	
R628	1-215-857-11	METAL OXIDE	10	5%	1W	F
R629	1-216-364-11	METAL OXIDE	0.39	5%	2W	F
R630	1-215-890-11	METAL OXIDE	470	5%	2W	F
R631	1-249-405-11	CARBON	100	5%	1/4W	F
R632	1-215-417-00	METAL	680	1%	1/4W	
R633	1-249-405-11	CARBON	100	5%	1/4W	
R635	1-215-441-00	METAL	6.8K	1%	1/4W	
R636	1-260-300-71	CARBON	4.7	5%	1/2W	
R637	1-249-423-11	CARBON	3.3K	5%	1/4W	
R638	1-249-415-11	CARBON	680	5%	1/4W	
R639	1-215-437-00	METAL	4.7K	1%	1/4W	
R640	1-249-390-11	CARBON	5.6	5%	1/4W	
R641	1-249-437-11	CARBON	47K	5%	1/4W	
R642	1-249-430-11	CARBON	12K	5%	1/4W	
R643	1-215-449-00	METAL	15K	1%	1/4W	
R644	1-260-324-71	CARBON	470	5%	1/2W	
R645	1-249-405-11	CARBON	100	5%	1/4W	
R646	1-249-437-11	CARBON	47K	5%	1/4W	
R647	1-249-430-11	CARBON	12K	5%	1/4W	
R648	1-249-439-11	CARBON	68K	5%	1/4W	
R649	1-249-417-11	CARBON	1K	5%	1/4W	
R650	1-249-421-11	CARBON	2.2K	5%	1/4W	
R651	1-249-421-11	CARBON	2.2K	5%	1/4W	
R652	1-249-421-11	CARBON	2.2K	5%	1/4W	
R653	1-249-437-11	CARBON	47K	5%	1/4W	
R654	1-249-429-11	CARBON	10K	5%	1/4W	
R655	1-249-425-11	CARBON	4.7K	5%	1/4W	

F **F1** **A2**

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R656	1-249-433-11	CARBON	22K	5%	1/4W	
R657	1-249-434-11	CARBON	27K	5%	1/4W	
R658	1-249-417-11	CARBON	1K	5%	1/4W	
R659	1-249-425-11	CARBON	4.7K	5%	1/4W	
R661	1-249-418-11	CARBON	1.2K	5%	1/4W	
R663	1-249-397-11	CARBON	22	5%	1/4W	
R664	1-249-419-11	CARBON	1.5K	5%	1/4W	
R665	1-249-417-11	CARBON	1K	5%	1/4W	
R666	1-249-423-11	CARBON	3.3K	5%	1/4W	
R667	1-249-423-11	CARBON	3.3K	5%	1/4W	
R668	1-249-417-11	CARBON	1K	5%	1/4W	
R669	⚠ 1-247-289-11	CARBON	8.2M	5%	1W	
R671	1-249-417-11	CARBON	1K	5%	1/4W	
R672	1-249-377-11	CARBON	0.47	5%	1/4W	F
R673	1-249-377-11	CARBON	0.47	5%	1/4W	F
R674	1-249-377-11	CARBON	0.47	5%	1/4W	F
R675	1-249-377-11	CARBON	0.47	5%	1/4W	F
R676	1-249-377-11	CARBON	0.47	5%	1/4W	F
R677	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R678	1-249-425-11	CARBON	4.7K	5%	1/4W	
R679	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R680	1-249-377-11	CARBON	0.47	5%	1/4W	F
R681	1-249-377-11	CARBON	0.47	5%	1/4W	F

<RELAY>

REF.NO.	PART NO.	DESCRIPTION
RY601	⚠ 1-515-684-12	RELAY
RY602	⚠ 1-515-684-12	RELAY

<TRANSFORMER>

REF.NO.	PART NO.	DESCRIPTION
T602	⚠ 1-697-016-11	TRANSFORMER, CONVERTER DRIVE
T603	⚠ 1-697-015-11	TRANSFORMER, CONVERTER (SBT)
T604	⚠ 1-697-014-11	TRANSFORMER, CONVERTER (PRT)

<THERMISTOR>

REF.NO.	PART NO.	DESCRIPTION
THP601	⚠ 1-809-827-11	THERMISTOR, POSITIVE

<VARISTOR>

REF.NO.	PART NO.	DESCRIPTION
VDR601	1-809-942-71	VARISTOR
VDR602	1-809-679-21	VARISTOR

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*1-643-889-12 F1 BOARD
****

REF.NO.	PART NO.	DESCRIPTION
	1-533-223-11	CLIP, FUSE
	*4-341-751-01	EYELET (EY218(KV-S29SN1,S34SN1),EY220 (KV-S29SN1,S34SN1),EY300,EY301(KV-S29JN1,S29MN1,S34JN1,S34MN1),EY302(KV-S29SN1,S34SN1),EY303~EY310(KV-S29JN1, S29MN1,S34JN1,S34MN1))
	*4-341-752-01	EYELET (EY200,EY201,EY203~EY209(KV-S29SN1,S34SN1),EY210~EY216,EY217(KV-S29SN1,S34SN1))

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C1	⚠ 1-136-548-13	FILM	0.1MF	20%	250V	(KV-S29JN1,S29MN1,S34JN1,S34MN1)
	⚠ 1-136-360-51	FILM	0.22MF	20%	250V	(KV-S29SN1,S34SN1)
C2	1-130-711-00	FILM	0.22MF	20%	250V	(KV-S29SN1,S34SN1)
C3	1-161-741-00	CERAMIC	0.001MF	20%	400V	(KV-S29SN1,S34SN1)
C4	1-161-741-00	CERAMIC	0.001MF	20%	400V	(KV-S29SN1,S34SN1)

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN1	*1-580-843-11	PIN, CONNECTOR (POWER)	
CN2	*1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P	
CN3	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P	(KV-S29SN1,S34SN1)
CN4	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P	

<FUSE>

REF.NO.	PART NO.	DESCRIPTION
F1	⚠ 1-532-299-11	FUSE, TIME-LAG 5A/250V

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION			
R1	⚠ 1-202-916-91	SOLID	5.6M	20%	1/2W

<TRANSFORMER>

REF.NO.	PART NO.	DESCRIPTION	REMARK
T1	⚠ 1-424-585-11	TRANSFORMER, LINE FILTER	(KV-S29JN1,S29MN1,S34JN1,S34MN1)
	⚠ 1-424-183-11	TRANSFORMER, LINE FILTER	(KV-S29SN1,S34SN1)
T2	⚠ 1-424-585-11	TRANSFORMER, LINE FILTER	(KV-S29JN1,S29MN1,S34JN1,S34MN1)
	⚠ 1-424-183-11	TRANSFORMER, LINE FILTER	(KV-S29SN1,S34SN1)
T3	⚠ 1-424-183-11	TRANSFORMER, LINE FILTER	(KV-S29SN1,S34SN1)

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*1-644-746-11 A2 BOARD
****

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			
C4401	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C4402	1-124-477-11	ELECT	47MF	20%	16V
C4403	1-124-589-11	ELECT	47MF	20%	16V
C4404	1-124-589-11	ELECT	47MF	20%	16V
C4405	1-124-907-11	ELECT	10MF	20%	50V
C4406	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C4407	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C4408	1-124-477-11	ELECT	47MF	20%	16V
C4409	1-163-105-00	CERAMIC CHIP	33PF	5%	50V

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION
CN4401	1-691-178-11	CONNECTOR (BOARD TO BOARD) 8P
CN4402	1-691-173-11	CONNECTOR (BOARD TO BOARD) 3P

<DIODE>

REF.NO.	PART NO.	DESCRIPTION
D4401	8-719-105-82	DIODE RD5.1M-B2

<IC>

REF.NO.	PART NO.	DESCRIPTION
IC4401	8-759-800-81	IC LA7016
IC4402	8-759-977-54	IC MSM5258RS

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
Q4401	8-729-920-74	TRANSISTOR	2SC2412K-QR			
Q4402	8-729-230-46	TRANSISTOR	2SA1162-YG			
Q4403	8-729-230-46	TRANSISTOR	2SA1162-YG			
Q4404	8-729-230-46	TRANSISTOR	2SA1162-YG			
Q4405	8-729-901-01	TRANSISTOR	DTC144EK			
Q4406	8-729-920-74	TRANSISTOR	2SC2412K-QR			
Q4407	8-729-920-74	TRANSISTOR	2SC2412K-QR			

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
JR4401	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR4402	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR4403	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR4404	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR4405	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR4406	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR4407	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR4408	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR4409	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R4401	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R4402	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R4403	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R4404	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R4405	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R4406	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R4407	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R4408	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R4409	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R4410	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R4411	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R4412	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R4413	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R4414	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R4415	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R4416	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R4417	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R4418	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	

<CRYSTAL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
X4401	1-577-099-11	VIBRATOR, CERAMIC	

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*A-1297-031-A A1 BOARD, COMPLETE
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<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C101	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C102	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C103	1-124-907-11	ELECT	10MF	20%	50V	
C104	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C105	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C106	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C107	1-124-478-11	ELECT	100MF	20%	25V	
C108	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C109	1-163-123-00	CERAMIC CHIP	180PF	5%	50V	
C110	1-163-123-00	CERAMIC CHIP	180PF	5%	50V	
C111	1-163-833-00	CERAMIC CHIP	0.068MF	10%	25V	
C112	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C113	1-163-113-00	CERAMIC CHIP	68PF	5%	50V	
C114	1-163-121-00	CERAMIC CHIP	150PF	5%	50V	
C115	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C116	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C117	1-163-121-00	CERAMIC CHIP	150PF	5%	50V	
C118	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C119	1-136-167-00	FILM	0.15MF	5%	50V	
C120	1-163-119-00	CERAMIC CHIP	120PF	5%	50V	
C121	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C122	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C123	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C124	1-163-113-00	CERAMIC CHIP	68PF	5%	50V	
C125	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C126	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C127	1-126-101-11	ELECT	100MF	20%	16V	
C128	1-124-907-11	ELECT	10MF	20%	50V	
C129	1-126-101-11	ELECT	100MF	20%	16V	
C130	1-126-101-11	ELECT	100MF	20%	16V	
C131	1-126-101-11	ELECT	100MF	20%	16V	
C132	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C133	1-126-101-11	ELECT	100MF	20%	16V	
C134	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C135	1-126-101-11	ELECT	100MF	20%	16V	
C136	1-163-989-11	CERAMIC CHIP	0.033MF	10%	25V	
C137	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C138	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C139	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C140	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C141	1-126-101-11	ELECT	100MF	20%	16V	
C142	1-163-989-11	CERAMIC CHIP	0.033MF	10%	25V	
C143	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C144	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C145	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C146	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C147	1-124-907-11	ELECT	10MF	20%	50V	
C148	1-126-101-11	ELECT	100MF	20%	16V	
C149	1-126-101-11	ELECT	100MF	20%	16V	
C150	1-124-907-11	ELECT	10MF	20%	50V	
C151	1-126-101-11	ELECT	100MF	20%	16V	
C152	1-124-477-11	ELECT	47MF	20%	16V	
C153	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C154	1-126-101-11	ELECT	100MF	20%	16V	
C155	1-126-101-11	ELECT	100MF	20%	16V	
C156	1-126-101-11	ELECT	100MF	20%	16V	
C157	1-124-477-11	ELECT	47MF	20%	16V	
C158	1-126-101-11	ELECT	100MF	20%	16V	
C159	1-126-101-11	ELECT	100MF	20%	16V	
C160	1-124-907-11	ELECT	10MF	20%	50V	
C201	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C202	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C203	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C204	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C205	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C206	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C207	1-216-295-00	METAL GLAZE	0	5%	1/10W	
C208	1-124-903-11	ELECT	1MF	20%	50V	
C209	1-124-477-11	ELECT	47MF	20%	16V	
C210	1-124-477-11	ELECT	47MF	20%	16V	
C211	1-136-485-81	FILM	0.01MF	5%	50V	
C212	1-136-485-81	FILM	0.01MF	5%	50V	
C213	1-126-233-11	ELECT	22MF	20%	50V	
C214	1-126-233-11	ELECT	22MF	20%	50V	
C215	1-136-489-81	FILM	0.022MF	5%	50V	

A1

REF.NO.	PART NO.	DESCRIPTION				REMARK
C216	1-136-497-81	FILM	0.1MF	5%	50V	
C217	1-136-169-00	FILM	0.22MF	5%	50V	
C218	1-136-493-81	FILM	0.047MF	5%	50V	
C219	1-124-034-51	ELECT	33MF	20%	16V	
C220	1-124-477-11	ELECT	47MF	20%	16V	
C221	1-124-477-11	ELECT	47MF	20%	16V	
C222	1-124-477-11	ELECT	47MF	20%	16V	
C223	1-124-477-11	ELECT	47MF	20%	16V	
C224	1-124-907-11	ELECT	10MF	20%	50V	
C225	1-163-121-00	CERAMIC CHIP	150PF	5%	50V	
C226	1-163-119-00	CERAMIC CHIP	120PF	5%	50V	
C227	1-136-298-00	FILM	0.0033MF	5%	100V	
C228	1-106-343-00	MYLAR	0.001MF	10%	100V	
C229	1-124-907-11	ELECT	10MF	20%	50V	
C230	1-124-903-11	ELECT	1MF	20%	50V	
C231	1-124-903-11	ELECT	1MF	20%	50V	
C232	1-163-119-00	CERAMIC CHIP	120PF	5%	50V	
C233	1-124-907-11	ELECT	10MF	20%	50V	
C234	1-136-169-00	FILM	0.22MF	5%	50V	
C235	1-130-479-00	MYLAR	0.0047MF	5%	50V	
C236	1-136-485-81	FILM	0.01MF	5%	50V	
C237	1-124-903-11	ELECT	1MF	20%	50V	
C238	1-136-169-00	FILM	0.22MF	5%	50V	
C239	1-124-120-11	ELECT	220MF	20%	16V	
C240	1-124-477-11	ELECT	47MF	20%	16V	
C241	1-124-477-11	ELECT	47MF	20%	16V	
C242	1-126-096-11	ELECT	10MF	20%	25V	
C243	1-126-096-11	ELECT	10MF	20%	25V	
C244	1-126-096-11	ELECT	10MF	20%	25V	
C245	1-126-096-11	ELECT	10MF	20%	25V	
C246	1-124-034-51	ELECT	33MF	20%	16V	
C247	1-124-229-00	ELECT	33MF	20%	10V	
C248	1-124-034-51	ELECT	33MF	20%	16V	
C249	1-124-034-51	ELECT	33MF	20%	16V	
C250	1-126-101-11	ELECT	100MF	20%	16V	
C253	1-130-495-00	MYLAR	0.1MF	5%	50V	
C256	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C257	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C260	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C265	1-124-034-51	ELECT	33MF	20%	16V	
C267	1-124-907-11	ELECT	10MF	20%	50V	
C268	1-163-127-00	CERAMIC CHIP	270PF	5%	50V	
C269	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C270	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C271	1-163-038-00	CERAMIC CHIP	0.1MF		25V	

<FILTER>

REF.NO.	PART NO.	DESCRIPTION
BP101	1-236-477-11	FILTER, BAND PASS
CDA201	1-404-751-11	DISCRIMINATOR, CERAMIC
CDA202	1-404-750-11	DISCRIMINATOR, CERAMIC
CF102	1-404-134-00	TRAP, CERAMIC (5.5MHZ)
SFT201	1-527-840-00	FILTER, CERAMIC
SFT202	1-527-839-00	FILTER, CERAMIC

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION
CN101	*1-573-979-11	CONNECTOR, BOARD TO BOARD 11P
CN102	*1-573-979-11	CONNECTOR, BOARD TO BOARD 11P

<TRIMMER>

REF.NO.	PART NO.	DESCRIPTION
CV101	1-141-260-00	TRIMMER, CERAMIC

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D101	8-719-988-70	DIODE BB405B	
D102	8-719-988-71	DIODE BB809	
D103	8-719-400-18	DIODE MA152WK	
D104	8-719-400-18	DIODE MA152WK	
D105	8-719-914-44	DIODE DAP202K	
D107	8-719-400-18	DIODE MA152WK	
D108	8-719-914-44	DIODE DAP202K	
D109	8-719-911-19	DIODE 1SS119	
D110	8-719-911-19	DIODE 1SS119	
D201	8-719-400-18	DIODE MA152WK	
D202	8-719-109-84	DIODE RD5.1ES-B1	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC101	8-759-511-88	IC TDA8732	
IC102	8-759-511-89	IC SAA7280	
IC103	8-759-900-02	IC SN74LS02N	
IC104	8-759-900-72	IC NE5532P	
IC105	8-759-900-72	IC NE5532P	
IC106	8-759-140-53	IC UPD4053BC	
IC107	8-759-504-22	IC TDA1543	
IC201	8-759-003-90	IC TBA129	
IC202	8-759-003-90	IC TBA129	
IC203	8-759-030-48	IC TDA6600-2	
IC204	8-759-513-48	IC TDA2595/V9	
IC205	8-759-000-49	IC MC14066BCP	
IC206	8-759-000-48	IC MC14052BCP	
IC207	8-752-057-18	IC CXA1315P	
IC208	8-759-142-04	IC UPC7893HF	
IC209	8-759-231-53	IC TA7805S	

<COIL>

REF.NO.	PART NO.	DESCRIPTION		REMARK
L102	1-410-119-11	INDUCTOR	1MMH	
L103	1-410-119-11	INDUCTOR	1MMH	
L104	1-407-499-00	INDUCTOR	3.9MMH	
L105	1-408-421-00	INDUCTOR	100UH	
L106	1-408-421-00	INDUCTOR	100UH	
L201	1-408-410-00	INDUCTOR	12UH	
L202	1-408-410-00	INDUCTOR	12UH	
L203	1-410-064-11	INDUCTOR	2.7MMH	
L204	1-408-421-00	INDUCTOR	100UH	
L205	1-408-421-00	INDUCTOR	100UH	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q101	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q102	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q103	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q104	8-729-901-01	TRANSISTOR DTC144EK	
Q106	8-729-901-01	TRANSISTOR DTC144EK	
Q107	8-729-901-01	TRANSISTOR DTC144EK	
Q108	8-729-901-01	TRANSISTOR DTC144EK	
Q109	8-729-901-01	TRANSISTOR DTC144EK	
Q110	8-729-901-01	TRANSISTOR DTC144EK	
Q201	8-729-901-01	TRANSISTOR DTC144EK	
Q202	8-729-901-01	TRANSISTOR DTC144EK	
Q203	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q204	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q205	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q206	8-729-920-74	TRANSISTOR 2SC2412K-QR	

REF.NO.	PART NO.	DESCRIPTION				REMARK
Q217	8-729-920-74	TRANSISTOR 2SC2412K-QR				

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
JR1	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR2	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR3	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR4	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR5	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR6	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R101	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R102	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R103	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R104	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R105	1-216-011-00	METAL GLAZE	27	5%	1/10W	
R106	1-216-638-11	METAL CHIP	300	0.50%	1/10W	
R107	1-216-644-11	METAL CHIP	510	0.50%	1/10W	
R108	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R109	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R110	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R111	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R112	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R113	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R115	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R117	1-216-686-11	METAL CHIP	30K	0.50%	1/10W	
R118	1-216-686-11	METAL CHIP	30K	0.50%	1/10W	
R119	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R120	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R121	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R122	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R123	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R124	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R125	1-216-270-00	METAL GLAZE	1M	5%	1/8W	
R127	1-216-119-00	METAL GLAZE	820K	5%	1/10W	
R128	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R129	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R130	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R131	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R132	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R133	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R134	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R135	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R136	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R137	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R138	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R139	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R140	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R141	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R142	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R143	1-216-640-11	METAL CHIP	360	0.50%	1/10W	
R144	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R145	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R146	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R147	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R148	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R149	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R150	1-216-640-11	METAL CHIP	360	0.50%	1/10W	
R151	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R152	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R153	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R154	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R155	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R156	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R157	1-216-085-00	METAL GLAZE	33K	5%	1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R158	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R159	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R160	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R161	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R162	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R163	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R164	1-216-234-00	METAL GLAZE	33K	5%	1/8W	
R165	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R166	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R167	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R168	1-216-011-00	METAL GLAZE	27	5%	1/10W	
R169	1-247-903-00	CARBON	1M	5%	1/4W	
R200	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R201	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R202	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R203	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R204	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R205	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R206	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R208	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R209	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R210	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R211	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R212	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R213	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R214	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R215	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R216	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R217	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R218	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R219	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R220	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R221	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R222	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R223	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R224	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R225	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R226	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R227	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R228	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R229	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R230	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R231	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R234	1-216-349-00	METAL OXIDE	1	5%	1W	F
R235	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R236	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R237	1-216-349-00	METAL OXIDE	1	5%	1W	F
R238	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R239	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R240	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R241	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R242	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R243	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R244	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R245	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R246	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R247	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R250	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R265	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R273	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R275	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R276	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R277	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R278	1-216-025-00	METAL GLAZE	100	5%	1/10W	

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REF.NO.	PART NO.	DESCRIPTION				REMARK
R279	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R280	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R281	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R282	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R283	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R284	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R287	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R288	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R289	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R290	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R291	1-249-429-11	CARBON	10K	5%	1/4W	

<VARIABLE RESISTOR>

REF.NO.	PART NO.	DESCRIPTION
RV201	1-241-630-11	RES, ADJ, CARBON 10K
RV202	1-241-632-11	RES, ADJ, CARBON 47K

<CRYSTAL>

REF.NO.	PART NO.	DESCRIPTION
X101	1-579-282-21	VIBRATOR, CRYSTAL
X102	1-579-281-11	VIBRATOR, CRYSTAL

****

*A-1297-064-A A BOARD, COMPLETE (KV-S29JN1)
****

*A-1296-972-A A BOARD, COMPLETE
****
(KV-S29MN1, S29SN1)

*A-1297-033-A A BOARD, COMPLETE (KV-S34JN1)
****

*A-1296-961-A A BOARD, COMPLETE (KV-S34MN1, S34SN1)
****

*4-341-752-01 EYELET (EY1~EY10)
4-382-854-11 SCREW (M3X10), P, SW (+)

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C1101	1-124-907-11	ELECT	10MF	20%	50V	
C1102	1-124-478-11	ELECT	100MF	20%	25V	
C1103	1-102-121-00	CERAMIC	0.0022MF	10%	50V	
C1104	1-102-121-00	CERAMIC	0.0022MF	10%	50V	
C1105	1-102-978-00	CERAMIC	220PF	5%	50V	
C1106	1-130-491-00	MYLAR	0.047MF	5%	50V	
C1107	1-126-301-11	ELECT	1MF	20%	50V	
C1108	1-102-973-00	CERAMIC	100PF	5%	50V	
C1110	1-124-472-11	ELECT	470MF	20%	10V	
C1111	1-131-343-00	TANTALUM	0.22MF	20%	16V	
C1112	1-124-907-11	ELECT	10MF	20%	50V	
C1113	1-124-478-11	ELECT	100MF	20%	25V	
C1114	1-124-122-11	ELECT	100MF	20%	50V	
C1115	1-124-478-11	ELECT	100MF	20%	25V	
C1117	1-124-907-11	ELECT	10MF	20%	50V	
C1119	1-124-907-11	ELECT	10MF	20%	50V	
C1120	1-124-122-11	ELECT	100MF	20%	50V	
C1122	1-102-976-00	CERAMIC	180PF	5%	50V	
C1123	1-102-976-00	CERAMIC	180PF	5%	50V	
C1124	1-124-907-11	ELECT	10MF	20%	50V	
C1125	1-130-483-00	MYLAR	0.01MF	5%	50V	
C1127	1-124-907-11	ELECT	10MF	20%	50V	
C1128	1-124-903-11	ELECT	1MF	20%	50V	
C1130	1-102-978-00	CERAMIC	220PF	5%	50V	
C1131	1-130-491-00	MYLAR	0.047MF	5%	50V	
C1132	1-126-301-11	ELECT	1MF	20%	50V	
C1133	1-102-973-00	CERAMIC	100PF	5%	50V	
C1134	1-124-478-11	ELECT	100MF	20%	25V	
C1135	1-124-478-11	ELECT	100MF	20%	25V	
C1136	1-124-907-11	ELECT	10MF	20%	50V	
C1139	1-102-228-00	CERAMIC	470PF	10%	500V	
C1140	1-102-228-00	CERAMIC	470PF	10%	500V	
C1141	1-102-228-00	CERAMIC	470PF	10%	500V	
C1142	1-102-228-00	CERAMIC	470PF	10%	500V	
C1143	1-102-228-00	CERAMIC	470PF	10%	500V	
C1144	1-102-228-00	CERAMIC	470PF	10%	500V	
C1145	1-102-228-00	CERAMIC	470PF	10%	500V	
C1146	1-102-228-00	CERAMIC	470PF	10%	500V	
C1148	1-102-228-00	CERAMIC	470PF	10%	500V	
C1149	1-126-157-11	ELECT	10MF	20%	16V	
C1153	1-124-589-11	ELECT	47MF	20%	16V	
C1155	1-124-907-11	ELECT	10MF	20%	50V	
C1156	1-124-589-11	ELECT	47MF	20%	16V	
C1157	1-102-973-00	CERAMIC	100PF	5%	50V	
C1158	1-126-301-11	ELECT	1MF	20%	50V	
C1159	1-130-487-00	MYLAR	0.022MF	5%	50V	
C1160	1-130-487-00	MYLAR	0.022MF	5%	50V	
C1161	1-130-471-00	MYLAR	0.001MF	5%	50V	
C1162	1-130-483-00	MYLAR	0.01MF	5%	50V	
C1201	1-124-907-11	ELECT	10MF	20%	50V	
C1202	1-124-907-11	ELECT	10MF	20%	50V	
C1203	1-124-910-11	ELECT	47MF	20%	50V	
C1204	1-124-907-11	ELECT	10MF	20%	50V	
C1205	1-124-927-11	ELECT	4.7MF	20%	50V	
C1206	1-124-907-11	ELECT	10MF	20%	50V	
C1207	1-124-910-11	ELECT	47MF	20%	50V	
C1208	1-124-927-11	ELECT	4.7MF	20%	50V	
C1209	1-124-927-11	ELECT	4.7MF	20%	50V	
C1210	1-124-903-11	ELECT	1MF	20%	50V	
C1211	1-124-927-11	ELECT	4.7MF	20%	50V	
C1212	1-130-483-00	MYLAR	0.01MF	5%	50V	
C1213	1-124-927-11	ELECT	4.7MF	20%	50V	
C1214	1-124-927-11	ELECT	4.7MF	20%	50V	
C1215	1-124-907-11	ELECT	10MF	20%	50V	
C1216	1-136-165-00	FILM	0.1MF	5%	50V	
C1217	1-126-057-11	ELECT	2200MF	20%	50V	
C1218	1-136-169-00	FILM	0.22MF	5%	50V	
C1219	1-126-057-11	ELECT	2200MF	20%	50V	
C1220	1-136-165-00	FILM	0.1MF	5%	50V	
C1221	1-124-234-00	ELECT	22MF	20%	16V	
C1222	1-126-057-11	ELECT	2200MF	20%	50V	
C1223	1-124-910-11	ELECT	47MF	20%	50V	
C1224	1-124-910-11	ELECT	47MF	20%	50V	
C1225	1-124-903-11	ELECT	1MF	20%	50V	
C1226	1-124-903-11	ELECT	1MF	20%	50V	
C1228	1-124-910-11	ELECT	47MF	20%	50V	
C1231	1-124-907-11	ELECT	10MF	20%	50V	
C1232	1-126-101-11	ELECT	100MF	20%	16V	
C2602	1-124-477-11	ELECT	47MF	20%	16V	
C2604	1-124-907-11	ELECT	10MF	20%	50V	
C2609	1-124-477-11	ELECT	47MF	20%	16V	
C2621	1-136-497-81	FILM	0.1MF	5%	50V	
C2622	1-136-497-81	FILM	0.1MF	5%	50V	
C2625	1-124-477-11	ELECT	47MF	20%	25V	
C2626	1-124-477-11	ELECT	47MF	20%	25V	
C2627	1-124-911-11	ELECT	220MF	20%	50V	
C2628	1-124-120-11	ELECT	220MF	20%	25V	
C2629	1-124-120-11	ELECT	220MF	20%	25V	
C2630	1-136-497-81	FILM	0.1MF	5%	50V	
C2631	1-126-101-11	ELECT	100MF	20%	16V	
C2632	1-124-907-11	ELECT	10MF	20%	50V	
C2633	1-102-129-00	CERAMIC	0.01MF	10%	50V	
C3502	1-124-120-11	ELECT	220MF	20%	16V	
C3510	1-102-112-00	CERAMIC	330PF	10%	50V	

REF.NO.	PART NO.	DESCRIPTION			REMARK
C3512	1-126-301-11	ELECT	1MF	20%	50V
C3513	1-136-169-00	FILM	0.22MF	5%	50V
C3514	1-136-169-00	FILM	0.22MF	5%	50V
C3515	1-130-487-00	MYLAR	0.022MF	5%	50V
C3516	1-126-301-11	ELECT	1MF	20%	50V
C3517	1-124-478-11	ELECT	100MF	20%	25V
C3518	1-124-903-11	ELECT	1MF	20%	50V
C3519	1-130-471-00	MYLAR	0.001MF	5%	50V
C3520	1-124-589-11	ELECT	47MF	20%	16V
C3521	1-102-110-00	CERAMIC	220PF	10%	50V
C3522	1-124-907-11	ELECT	10MF	20%	50V
C3523	1-124-465-00	ELECT	0.47MF	20%	50V
C3525	1-130-483-00	MYLAR	0.01MF	5%	50V
C3526	1-102-106-00	CERAMIC	100PF	10%	50V
C3527	1-126-301-11	ELECT	1MF	20%	50V
C3528	1-102-129-00	CERAMIC	0.01MF	10%	50V
C3530	1-124-465-00	ELECT	0.47MF	20%	50V
C3531	1-130-479-00	MYLAR	0.0047MF	5%	50V
C3532	1-136-169-00	FILM	0.22MF	5%	50V
C3533	1-124-767-00	ELECT	2.2MF	20%	50V
C3534	1-136-169-00	FILM	0.22MF	5%	50V
C3535	1-124-903-11	ELECT	1MF	20%	50V
C3536	1-124-767-00	ELECT	2.2MF	20%	50V
C3537	1-102-129-00	CERAMIC	0.01MF	10%	50V
C3538	1-102-129-00	CERAMIC	0.01MF	10%	50V
C3539	1-124-234-00	ELECT	22MF	20%	16V
C3540	1-102-973-00	CERAMIC	100PF	5%	50V
C3541	1-130-479-00	MYLAR	0.0047MF	5%	50V
C3542	1-124-478-11	ELECT	100MF	20%	25V
C3543	1-102-228-00	CERAMIC	470PF	10%	500V
C3544	1-102-525-11	CERAMIC	68PF	5%	50V
C3545	1-124-925-11	ELECT	2.2MF	20%	50V
C3546	1-102-973-00	CERAMIC	100PF	5%	50V
C3547	1-130-487-00	MYLAR	0.022MF	5%	50V
C3548	1-124-903-11	ELECT	1MF	20%	50V
C3549	1-124-903-11	ELECT	1MF	20%	50V
C3550	1-137-443-11	FILM	0.056MF	5%	50V
C3554	1-136-161-00	FILM	0.047MF	5%	50V
C3555	1-136-161-00	FILM	0.047MF	5%	50V
C3557	1-136-165-00	FILM	0.1MF	5%	50V
C3558	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C3559	1-136-165-00	FILM	0.1MF	5%	50V

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION
CN1100*	1-573-979-11	CONNECTOR, BOARD TO BOARD 11P
CN1101*	1-564-509-11	PLUG, CONNECTOR 6P
CN1102*	1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P
CN1103	1-691-160-11	PIN, CONNECTOR 3P
CN1104*	1-564-505-11	PLUG, CONNECTOR 2P
CN1105*	1-564-506-11	PLUG, CONNECTOR 3P
CN1106*	1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P
CN1107	1-691-165-11	PIN, CONNECTOR 8P
CN1109*	1-691-616-11	CONNECTOR, BOARD TO BOARD 15P
CN1110*	1-564-510-11	PLUG, CONNECTOR 7P
CN1111*	1-564-512-11	PLUG, CONNECTOR 9P
CN1112*	1-565-394-11	PIN, BOARD TO BOARD CONNECTOR
CN1113*	1-565-394-11	PIN, BOARD TO BOARD CONNECTOR
CN1115*	1-564-513-11	PLUG, CONNECTOR 10P
CN1116*	1-573-960-11	CONNECTOR (FEMALE) 50P
CN1117*	1-573-960-11	CONNECTOR (FEMALE) 50P
CN1118*	1-573-978-11	CONNECTOR, BOARD TO BOARD 11P
CN1119*	1-573-978-11	CONNECTOR, BOARD TO BOARD 11P
CN1121*	1-564-511-11	PLUG, CONNECTOR 8P
CN1128*	1-691-616-11	CONNECTOR, BOARD TO BOARD 15P
CN1129*	1-573-978-11	CONNECTOR, BOARD TO BOARD 11P
CN1132*	1-564-513-11	PLUG, CONNECTOR 10P
CN1134*	1-564-513-11	PLUG, CONNECTOR 10P

<DIODE>

REF.NO.	PART NO.	DESCRIPTION
D1101	8-719-016-42	DIODE MC932
D1102	8-719-911-19	DIODE 1SS119
D1103	8-719-911-19	DIODE 1SS119
D1104	8-719-109-96	DIODE RD6.8ES-B1
D1105	8-719-109-96	DIODE RD6.8ES-B1
D1107	8-719-911-19	DIODE 1SS119
D1108	8-719-911-19	DIODE 1SS119
D1109	8-719-109-84	DIODE RD5.1ES-B1
D1130	8-719-016-42	DIODE MC932
D1131	8-719-911-19	DIODE 1SS119
D1132	8-719-109-81	DIODE RD4.7ES-B2
D1201	8-719-110-36	DIODE RD13ES-B2
D1202	8-719-110-36	DIODE RD13ES-B2
D1203	8-719-911-19	DIODE 1SS119
D1204	8-719-510-48	DIODE D1N20R
D1206	8-719-510-48	DIODE D1N20R
D2001	8-719-981-50	DIODE RB-100A
D3501	8-719-911-19	DIODE 1SS119
D3502	8-719-109-88	DIODE RD5.6ES-B1
D3503	8-719-110-22	DIODE RD11ES-B2

<IC>

REF.NO.	PART NO.	DESCRIPTION
IC1101	8-759-800-81	IC LA7016
IC1201	8-759-145-57	IC UPC4557C
IC1202	8-759-145-27	IC UPC1406HA
IC1203	8-759-246-70	IC TA8216H
IC2602	8-759-802-21	IC L780S09
IC2603	8-759-802-18	IC L780S05
IC2604	8-759-802-23	IC L780S12
IC2606	8-759-802-21	IC L780S09
IC2607	8-719-160-86	DIODE RD33F-B1
IC3501	8-752-057-68	IC CXA1464AS
IC3502	8-759-112-93	IC UPC4570HA-1
IC3503	8-752-057-18	IC CXA1315P

<IF BLOCK>

REF.NO.	PART NO.	DESCRIPTION
IF1101	1-466-677-11	IF BLOCK (IFF-380)
IF1102	1-466-138-11	IF BLOCK (IFD-380A)

<JACK>

REF.NO.	PART NO.	DESCRIPTION
J1101	1-507-562-00	JACK
J1102	1-507-562-00	JACK

<COIL>

REF.NO.	PART NO.	DESCRIPTION	
L1101	1-410-478-11	INDUCTOR	47UH
L1102	1-410-478-11	INDUCTOR	47UH
L1103	1-410-478-11	INDUCTOR	47UH
L1104	1-410-478-11	INDUCTOR	47UH
L1105	1-410-478-11	INDUCTOR	47UH
L1106	1-410-478-11	INDUCTOR	47UH
L1107	1-408-429-00	INDUCTOR	470UH
L1108	1-410-478-11	INDUCTOR	47UH
L1201	1-408-421-00	INDUCTOR	100UH

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REF.NO.	PART NO.	DESCRIPTION				REMARK
L1203	1-410-478-11	INDUCTOR	47UH			
L2601	1-412-528-11	INDUCTOR	18UH			
L2602	1-412-533-11	INDUCTOR	47UH			
L2603	1-412-533-11	INDUCTOR	47UH			
L2604	1-412-529-11	INDUCTOR	22UH			
L2605	1-412-533-11	INDUCTOR	47UH			

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION		REMARK
Q1101	8-729-119-76	TRANSISTOR	2SA1175-HFE	
Q1102	8-729-119-76	TRANSISTOR	2SA1175-HFE	
Q1103	8-729-119-76	TRANSISTOR	2SA1175-HFE	
Q1104	8-729-119-78	TRANSISTOR	2SC2785-HFE	
Q1105	8-729-119-78	TRANSISTOR	2SC2785-HFE	
Q1106	8-729-119-78	TRANSISTOR	2SC2785-HFE	
Q1107	8-729-119-76	TRANSISTOR	2SA1175-HFE	
Q1108	8-729-119-76	TRANSISTOR	2SA1175-HFE	
Q1110	8-729-808-36	TRANSISTOR	2SK669	
Q1112	8-729-808-36	TRANSISTOR	2SK669	
Q1113	8-729-900-89	TRANSISTOR	DTC144ES	
Q1114	8-729-119-78	TRANSISTOR	2SC2785-HFE	
Q1115	8-729-119-76	TRANSISTOR	2SA1175-HFE	
Q1116	8-729-900-80	TRANSISTOR	DTC114ES	
Q1117	8-729-119-78	TRANSISTOR	2SC2785-HFE	
Q1118	8-729-900-89	TRANSISTOR	DTC144ES	
Q1119	8-729-900-89	TRANSISTOR	DTC144ES	
Q1130	8-729-119-76	TRANSISTOR	2SA1175-HFE	
Q1132	8-729-119-78	TRANSISTOR	2SC2785-HFE	
Q1133	8-729-119-78	TRANSISTOR	2SC2785-HFE	
Q1134	8-729-900-89	TRANSISTOR	DTC144ES	
Q1135	8-729-119-78	TRANSISTOR	2SC2785-HFE	
Q1201	8-729-119-76	TRANSISTOR	2SA1175-HFE	
Q1202	8-729-119-78	TRANSISTOR	2SC2785-HFE	
Q1203	8-729-119-78	TRANSISTOR	2SC2785-HFE	
Q1204	8-729-900-89	TRANSISTOR	DTC144ES	
Q1205	8-729-900-89	TRANSISTOR	DTC144ES	
Q2001	8-729-119-78	TRANSISTOR	2SC2785-HFE	
Q2002	8-729-900-85	TRANSISTOR	DTC144WS	
Q3503	8-729-900-36	TRANSISTOR	DTC124ES	
Q3504	8-729-119-78	TRANSISTOR	2SC2785-HFE	
Q3505	8-729-119-78	TRANSISTOR	2SC2785-HFE	
Q3506	8-729-119-78	TRANSISTOR	2SC2785-HFE	
Q3507	8-729-119-78	TRANSISTOR	2SC2785-HFE	
Q3508	8-729-119-78	TRANSISTOR	2SC2785-HFE	
Q3509	8-729-119-78	TRANSISTOR	2SC2785-HFE	
Q3511	8-729-119-78	TRANSISTOR	2SC2785-HFE	
Q3512	8-729-119-76	TRANSISTOR	2SA1175-HFE	
Q3513	8-729-119-76	TRANSISTOR	2SA1175-HFE	
Q3514	8-729-119-78	TRANSISTOR	2SC2785-HFE	
Q3515	8-729-119-78	TRANSISTOR	2SC2785-HFE	
Q3516	8-729-119-78	TRANSISTOR	2SC2785-HFE	
Q3517	8-729-119-78	TRANSISTOR	2SC2785-HFE	
Q3518	8-729-119-76	TRANSISTOR	2SA1175-HFE	
Q3519	8-729-900-36	TRANSISTOR	DTC124ES	
Q3520	8-729-900-36	TRANSISTOR	DTC124ES	
Q3521	8-729-900-36	TRANSISTOR	DTC124ES	
Q3522	8-729-119-78	TRANSISTOR	2SC2785-HFE	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1103	1-249-415-11	CARBON	680	5%	1/4W	
R1104	1-247-903-00	CARBON	1M	5%	1/4W	
R1105	1-249-441-11	CARBON	100K	5%	1/4W	
R1106	1-249-429-11	CARBON	10K	5%	1/4W	
R1107	1-249-429-11	CARBON	10K	5%	1/4W	
R1108	1-249-431-11	CARBON	15K	5%	1/4W	
R1109	1-249-437-11	CARBON	47K	5%	1/4W	
R1110	1-249-439-11	CARBON	68K	5%	1/4W	
R1111	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1112	1-249-429-11	CARBON	10K	5%	1/4W	
R1113	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1114	1-249-441-11	CARBON	100K	5%	1/4W	
R1115	1-249-433-11	CARBON	22K	5%	1/4W	
R1116	1-249-413-11	CARBON	470	5%	1/4W	
R1117	1-249-404-00	CARBON	82	5%	1/4W	
R1118	1-249-437-11	CARBON	47K	5%	1/4W	
R1119	1-249-437-11	CARBON	47K	5%	1/4W	
R1120	1-249-441-11	CARBON	100K	5%	1/4W	
R1121	1-249-441-11	CARBON	100K	5%	1/4W	
R1122	1-249-395-11	CARBON	15	5%	1/4W	F
R1123	1-249-395-11	CARBON	15	5%	1/4W	F
R1124	1-249-429-11	CARBON	10K	5%	1/4W	
R1125	1-249-429-11	CARBON	10K	5%	1/4W	
R1126	1-249-409-11	CARBON	220	5%	1/4W	
R1127	1-249-409-11	CARBON	220	5%	1/4W	
R1128	1-249-409-11	CARBON	220	5%	1/4W	
R1129	1-249-428-11	CARBON	8.2K	5%	1/4W	
R1130	1-249-415-11	CARBON	680	5%	1/4W	
R1131	1-247-903-00	CARBON	1M	5%	1/4W	
R1132	1-249-441-11	CARBON	100K	5%	1/4W	
R1133	1-249-429-11	CARBON	10K	5%	1/4W	
R1134	1-249-429-11	CARBON	10K	5%	1/4W	
R1135	1-249-428-11	CARBON	8.2K	5%	1/4W	
R1136	1-249-405-11	CARBON	100	5%	1/4W	
R1137	1-249-409-11	CARBON	220	5%	1/4W	
R1139	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1140	1-249-433-11	CARBON	22K	5%	1/4W	
R1141	1-249-429-11	CARBON	10K	5%	1/4W	
R1144	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1145	1-249-433-11	CARBON	22K	5%	1/4W	
R1146	1-249-429-11	CARBON	10K	5%	1/4W	
R1148	1-249-441-11	CARBON	100K	5%	1/4W	
R1149	1-247-881-00	CARBON	120K	5%	1/4W	
R1150	1-249-409-11	CARBON	220	5%	1/4W	
R1152	1-249-417-11	CARBON	1K	5%	1/4W	
R1153	1-249-417-11	CARBON	1K	5%	1/4W	
R1154	1-249-409-11	CARBON	220	5%	1/4W	
R1155	1-249-409-11	CARBON	220	5%	1/4W	
R1156	1-249-429-11	CARBON	10K	5%	1/4W	
R1158	1-249-429-11	CARBON	10K	5%	1/4W	
R1160	1-249-409-11	CARBON	220	5%	1/4W	
R1161	1-249-440-11	CARBON	82K	5%	1/4W	
R1162	1-249-417-11	CARBON	1K	5%	1/4W	
R1163	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1164	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1165	1-249-429-11	CARBON	10K	5%	1/4W	
R1166	1-247-889-00	CARBON	270K	5%	1/4W	
R1167	1-247-889-00	CARBON	270K	5%	1/4W	
R1168	1-249-435-11	CARBON	33K	5%	1/4W	
R1169	1-249-405-11	CARBON	100	5%	1/4W	
R1170	1-249-429-11	CARBON	10K	5%	1/4W	
R1171	1-249-429-11	CARBON	10K	5%	1/4W	
R1173	1-249-417-11	CARBON	1K	5%	1/4W	
R1174	1-249-437-11	CARBON	47K	5%	1/4W	
R1175	1-249-437-11	CARBON	47K	5%	1/4W	
R1176	1-249-435-11	CARBON	33K	5%	1/4W	
R1177	1-249-423-11	CARBON	3.3K	5%	1/4W	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1178	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1179	1-249-428-11	CARBON	8.2K	5%	1/4W	
R1201	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1202	1-249-406-11	CARBON	120	5%	1/4W	
R1203	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1204	1-249-429-11	CARBON	10K	5%	1/4W	
R1205	1-249-429-11	CARBON	10K	5%	1/4W	
R1206	1-249-437-11	CARBON	47K	5%	1/4W	
R1207	1-249-406-11	CARBON	120	5%	1/4W	
R1208	1-249-437-11	CARBON	47K	5%	1/4W	
R1209	1-247-899-11	CARBON	680K	5%	1/4W	
R1210	1-249-437-11	CARBON	47K	5%	1/4W	
R1211	1-249-441-11	CARBON	100K	5%	1/4W	
R1212	1-247-899-11	CARBON	680K	5%	1/4W	
R1213	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1214	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1215	1-249-441-11	CARBON	100K	5%	1/4W	
R1216	1-249-437-11	CARBON	47K	5%	1/4W	
R1217	1-249-441-11	CARBON	100K	5%	1/4W	
R1218	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1219	1-249-417-11	CARBON	1K	5%	1/4W	
R1221	1-249-417-11	CARBON	1K	5%	1/4W	
R1223	1-249-437-11	CARBON	47K	5%	1/4W	
R1224	1-249-435-11	CARBON	33K	5%	1/4W	
R1225	1-249-437-11	CARBON	47K	5%	1/4W	
R1226	1-249-385-11	CARBON	2.2	5%	1/4W	F
R1227	1-249-441-11	CARBON	100K	5%	1/4W	
R1228	1-249-385-11	CARBON	2.2	5%	1/4W	F
R1229	1-249-441-11	CARBON	100K	5%	1/4W	
R1232	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1235	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1236	1-249-437-11	CARBON	47K	5%	1/4W	
R1240	1-249-441-11	CARBON	100K	5%	1/4W	
R1242	1-216-349-00	METAL OXIDE	1	5%	1W	F
R1243	1-249-429-11	CARBON	10K	5%	1/4W	
R2001	1-249-429-11	CARBON	10K	5%	1/4W	
R2002	1-249-429-11	CARBON	10K	5%	1/4W	
R2003	1-249-429-11	CARBON	10K	5%	1/4W	
R2601	1-215-905-11	METAL OXIDE	10	5%	3W	F
R2602	1-215-916-00	METAL OXIDE	680	5%	3W	F
R2603	1-215-905-11	METAL OXIDE	10	5%	3W	F
R2604	1-215-905-11	METAL OXIDE	10	5%	3W	F
R2605	1-215-905-11	METAL OXIDE	10	5%	3W	F
R2606	1-215-875-11	METAL OXIDE	10K	5%	1W	F
R2607	1-249-417-11	CARBON	1K	5%	1/4W	
R2608	1-249-417-11	CARBON	1K	5%	1/4W	
R2609	1-249-417-11	CARBON	1K	5%	1/4W	
R2610	1-249-417-11	CARBON	1K	5%	1/4W	
R3506	1-249-417-11	CARBON	1K	5%	1/4W	
R3507	1-259-882-11	CARBON	3.3M	5%	1/4W	
R3508	1-249-423-11	CARBON	3.3K	5%	1/4W	
R3509	1-249-427-11	CARBON	6.8K	5%	1/4W	
R3512	1-215-441-00	METAL	6.8K	1%	1/4W	
R3514	1-249-409-11	CARBON	220	5%	1/4W	
R3515	1-249-409-11	CARBON	220	5%	1/4W	
R3516	1-249-405-11	CARBON	100	5%	1/4W	
R3517	1-215-457-00	METAL	33K	1%	1/4W	
R3518	1-249-405-11	CARBON	100	5%	1/4W	
R3519	1-249-409-11	CARBON	220	5%	1/4W	F
R3520	1-249-417-11	CARBON	1K	5%	1/4W	
R3521	1-249-418-11	CARBON	1.2K	5%	1/4W	F
R3523	1-249-428-11	CARBON	8.2K	5%	1/4W	
R3524	1-247-889-00	CARBON	270K	5%	1/4W	
R3525	1-249-409-11	CARBON	220	5%	1/4W	
R3527	1-249-417-11	CARBON	1K	5%	1/4W	F
R3528	1-259-880-11	CARBON	2.2M	5%	1/4W	
R3529	1-249-415-11	CARBON	680	5%	1/4W	
R3531	1-249-421-11	CARBON	2.2K	5%	1/4W	
R3532	1-249-405-11	CARBON	100	5%	1/4W	F
R3533	1-249-405-11	CARBON	100	5%	1/4W	
R3534	1-249-415-11	CARBON	680	5%	1/4W	
R3535	1-249-417-11	CARBON	1K	5%	1/4W	
R3536	1-249-429-11	CARBON	10K	5%	1/4W	
R3538	1-249-437-11	CARBON	47K	5%	1/4W	
R3539	1-249-437-11	CARBON	47K	5%	1/4W	
R3540	1-249-438-11	CARBON	56K	5%	1/4W	
R3541	1-249-437-11	CARBON	47K	5%	1/4W	
R3542	1-249-437-11	CARBON	47K	5%	1/4W	
R3543	1-247-887-00	CARBON	220K	5%	1/4W	
R3544	1-247-883-00	CARBON	150K	5%	1/4W	
R3545	1-249-435-11	CARBON	33K	5%	1/4W	
R3546	1-249-435-11	CARBON	33K	5%	1/4W	
R3547	1-249-429-11	CARBON	10K	5%	1/4W	
R3548	1-249-429-11	CARBON	10K	5%	1/4W	
R3549	1-249-425-11	CARBON	4.7K	5%	1/4W	
R3550	1-247-887-00	CARBON	220K	5%	1/4W	
R3551	1-249-439-11	CARBON	68K	5%	1/4W	
R3552	1-249-441-11	CARBON	100K	5%	1/4W	
R3553	1-249-409-11	CARBON	220	5%	1/4W	
R3554	1-249-429-11	CARBON	10K	5%	1/4W	
R3555	1-249-409-11	CARBON	220	5%	1/4W	
R3556	1-249-417-11	CARBON	1K	5%	1/4W	
R3557	1-249-421-11	CARBON	2.2K	5%	1/4W	
R3558	1-249-425-11	CARBON	4.7K	5%	1/4W	
R3559	1-249-441-11	CARBON	100K	5%	1/4W	
R3560	1-249-417-11	CARBON	1K	5%	1/4W	
R3561	1-249-433-11	CARBON	22K	5%	1/4W	
R3562	1-249-425-11	CARBON	4.7K	5%	1/4W	
R3563	1-249-417-11	CARBON	1K	5%	1/4W	
R3564	1-249-429-11	CARBON	10K	5%	1/4W	
R3565	1-249-423-11	CARBON	3.3K	5%	1/4W	
R3566	1-249-424-11	CARBON	3.9K	5%	1/4W	
R3567	1-249-425-11	CARBON	4.7K	5%	1/4W	
R3568	1-259-884-11	CARBON	4.7M	5%	1/4W	
R3569	1-249-415-11	CARBON	680	5%	1/4W	
R3570	1-249-441-11	CARBON	100K	5%	1/4W	
R3571	1-249-441-11	CARBON	100K	5%	1/4W	
R3581	1-249-409-11	CARBON	220	5%	1/4W	
R3582	1-249-409-11	CARBON	220	5%	1/4W	
R3583	1-249-429-11	CARBON	10K	5%	1/4W	
R3584	1-249-429-11	CARBON	10K	5%	1/4W	
R3585	1-249-438-11	CARBON	56K	5%	1/4W	
R3586	1-249-429-11	CARBON	10K	5%	1/4W	
R3587	1-247-903-00	CARBON	1M	5%	1/4W	
R3588	1-249-429-11	CARBON	10K	5%	1/4W	
R3589	1-247-903-00	CARBON	1M	5%	1/4W	
R3590	1-249-437-11	CARBON	47K	5%	1/4W	
R3591	1-259-878-11	CARBON	1.5M	5%	1/4W	

<TUNER>

REF.NO.	PART NO.	DESCRIPTION	REMARK
TU1101⚠	1-693-123-11	TUNER, ET (BTP-RG401)	
TU1102⚠	1-693-123-11	TUNER, ET (BTP-RG401)	

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REF.NO.	PART NO.	DESCRIPTION		REMARK
	*A-1306-425-A	M BOARD, COMPLETE (KV-S29JN1, S34JN1) *****************		
	*A-1306-418-A	M BOARD, COMPLETE ***************** (KV-S29MN1, S29SN1, S34MN1, S34SN1)		
		<CAPACITOR>		
C001	1-124-907-11	ELECT 10MF	20%	50V
C002	1-124-907-11	ELECT 10MF	20%	50V
C003	1-163-033-00	CERAMIC CHIP 0.022MF		50V
C004	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C005	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C006	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C009	1-136-495-81	FILM 0.068MF	5%	50V
C010	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C012	1-124-477-11	ELECT 47MF	20%	16V
C014	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C015	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C016	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C017	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C018	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C019	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C020	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C021	1-124-477-11	ELECT 47MF	20%	16V
C022	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C023	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C024	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C025	1-124-477-11	ELECT 47MF	20%	16V
C026	1-163-099-00	CERAMIC CHIP 18PF	5%	50V
C027	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C028	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C029	1-163-103-00	CERAMIC CHIP 27PF	5%	50V
C030	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C031	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C033	1-163-097-00	CERAMIC CHIP 15PF	5%	50V
C034	1-163-087-00	CERAMIC CHIP 4PF	0.25PF	50V
C035	1-163-105-00	CERAMIC CHIP 33PF	5%	50V
C036	1-163-105-00	CERAMIC CHIP 33PF	5%	50V
C037	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C038	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C039	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C040	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C041	1-124-477-11	ELECT 47MF	20%	16V
C042	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C043	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C044	1-124-907-11	ELECT 10MF	20%	50V
C045	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C046	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C047	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C048	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C049	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C050	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C051	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C052	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C053	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C054	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C055	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C056	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C057	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C058	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C059	1-124-477-11	ELECT 47MF	20%	16V
C060	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C061	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C062	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C063	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C064	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C065	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C066	1-124-907-11	ELECT 10MF	20%	50V
C067	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C068	1-124-907-11	ELECT 10MF	20%	50V
C069	1-124-907-11	ELECT 10MF	20%	50V
C070	1-124-907-11	ELECT 10MF	20%	50V
C071	1-124-907-11	ELECT 10MF	20%	50V
C072	1-163-001-11	CERAMIC CHIP 220PF	10%	50V
C073	1-136-165-00	FILM 0.1MF	5%	50V
		<CONNECTOR>		
CN001	*1-564-525-11	PLUG, CONNECTOR 10P		
CN002	*1-573-965-11	PIN, CONNECTOR (PC BOARD) 50P		
		<DIODE>		
D002	8-719-800-76	DIODE 1SS226 (KV-S29MN1, S29SN1, S34MN1, S34SN1)		
D003	8-719-800-76	DIODE 1SS226 (KV-S29MN1, S29SN1, S34MN1, S34SN1)		
		<IC>		
IC001	8-759-043-86	IC ST24C02AB1		
IC002	8-759-043-86	IC ST24C02AB1		
IC003	8-759-403-44	IC MN1280-S		
IC004	8-759-069-75	IC MB90061-125		
IC005	8-759-069-76	IC M37204M8-A10SP (KV-S29MN1, S29SN1, S34MN1, S34SN1)		
	8-759-091-39	IC M37204M8-A11SP (KV-S29JN1, S34JN1)		
IC006	8-759-112-06	IC UPC78N05H		
		<COIL>		
L001	1-410-470-11	INDUCTOR 10UH		
L002	1-408-413-00	INDUCTOR 22UH		
L003	1-410-470-11	INDUCTOR 10UH		
L004	1-410-470-11	INDUCTOR 10UH		
L005	1-410-470-11	INDUCTOR 10UH		
		<TRANSISTOR>		
Q001	8-729-230-49	TRANSISTOR 2SC2712-YG		
Q002	8-729-230-49	TRANSISTOR 2SC2712-YG		
Q003	8-729-901-01	TRANSISTOR DTC144EK		
Q004	8-729-901-01	TRANSISTOR DTC144EK		
Q005	8-729-901-01	TRANSISTOR DTC144EK		
		<RESISTOR>		
R001	1-216-033-00	METAL GLAZE 220	5%	1/10W
R002	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R003	1-216-033-00	METAL GLAZE 220	5%	1/10W
R004	1-216-033-00	METAL GLAZE 220	5%	1/10W
R005	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W
R006	1-216-033-00	METAL GLAZE 220	5%	1/10W
R007	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R008	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R009	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R010	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W
R011	1-216-033-00	METAL GLAZE 220	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION				REMARK
R012	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R013	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R014	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R015	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R016	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R017	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R018	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R019	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R020	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R021	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R022	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R023	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R024	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R025	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R026	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R027	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R028	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R029	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R031	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R032	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R033	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R034	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R035	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R036	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R037	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R038	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R039	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R040	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R042	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R043	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R044	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R045	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R046	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R047	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R048	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R049	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R050	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R051	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R052	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R053	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R054	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R055	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R056	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R057	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R058	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R059	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R064	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R065	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R066	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R067	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R068	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R069	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R070	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R071	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R072	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R073	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R074	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R075	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R076	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R077	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R078	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R079	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R080	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R081	1-216-033-00	METAL GLAZE	220	5%	1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R082	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R083	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R084	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R085	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R086	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R087	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R088	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R089	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R090	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R091	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R092	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R093	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R094	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R095	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R096	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R097	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R098	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R099	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R100	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R101	1-216-049-00	METAL GLAZE	1K	5%	1/10W	

<CRYSTAL>

X001	1-577-082-11	VIBRATOR, CERAMIC	
X002	1-577-289-11	VIBRATOR, CRYSTAL 17.7MHZ	
	3-741-396-01	INSULATOR; X002	

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	*A-1331-217-A	C BOARD, COMPLETE *****************
	*4-341-751-01	EYELET (EY50~EY52, EY57~EY59, EY62, EY67)
	*4-341-752-01	EYELET (EY53~EY56, EY60, EY61, EY63~EY66, EY68~EY74)

<CAPACITOR>

C701	1-162-116-00	CERAMIC	680PF	10%	2KV
C702	1-137-490-11	FILM	0.01MF	10%	1KV
C704	1-123-946-00	ELECT	4.7MF	20%	250V
C705	1-106-375-12	MYLAR	0.022MF		200V
C706	1-106-375-12	MYLAR	0.022MF		200V
C707	1-164-083-11	CERAMIC	680PF	10%	50V
C708	1-164-083-11	CERAMIC	680PF	10%	50V
C709	1-164-083-11	CERAMIC	680PF	10%	50V
C710	1-102-820-00	CERAMIC	330PF	5%	50V
C711	1-126-233-11	ELECT	22MF	20%	25V
C712	1-102-820-00	CERAMIC	330PF	5%	50V
C713	1-102-820-00	CERAMIC	330PF	5%	50V
C715	1-102-074-00	CERAMIC	0.001MF	10%	50V
C719	1-101-880-00	CERAMIC	47PF	5%	50V
C730	1-164-083-11	CERAMIC	680PF	10%	50V
C731	1-164-083-11	CERAMIC	680PF	10%	50V
C732	1-164-083-11	CERAMIC	680PF	10%	50V
C733	1-102-074-00	CERAMIC	0.001MF	10%	50V

<CONNECTOR>

CN701	*1-691-134-11	PIN, CONNECTOR (PC BOARD) 2P
CN702	*1-573-964-11	PIN, CONNECTOR (PC BOARD) 6P
CN703	*1-564-509-11	PLUG, CONNECTOR 6P

C **VM**

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
		<DIODE>				
D701	8-719-911-19	DIODE 1SS119				
D702	8-719-911-19	DIODE 1SS119				
D703	8-719-911-19	DIODE 1SS119				
D704	8-719-911-19	DIODE 1SS119				
D705	8-719-911-19	DIODE 1SS119				
D706	8-719-911-19	DIODE 1SS119				
D707	8-719-911-19	DIODE 1SS119				
D708	8-719-911-19	DIODE 1SS119				
D709	8-719-911-19	DIODE 1SS119				
D713	8-719-911-19	DIODE 1SS119				
D714	8-719-911-19	DIODE 1SS119				
D715	8-719-911-19	DIODE 1SS119				
D716	8-719-911-19	DIODE 1SS119				
D718	8-719-110-14	DIODE RD9.1ES-B3				
		<JACK>				
J701 ⚠	1-540-223-11	SOCKET, PICTURE TUBE				
		<COIL>				
L701	1-410-671-31	INDUCTOR	47UH			
L702	1-410-645-31	INDUCTOR	100UH			
L703	1-410-674-31	INDUCTOR	82UH			
L704	1-410-471-11	INDUCTOR	12UH			
L705	1-410-473-11	INDUCTOR	18UH			
L706	1-410-645-31	INDUCTOR	100UH			
L707	1-408-411-00	INDUCTOR	15UH			
		<TRANSISTOR>				
Q701	8-729-326-11	TRANSISTOR 2SC2611				
	3-704-359-01	SCREW (M3X10), SW (+) P; Q701				
Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q703	8-729-200-17	TRANSISTOR 2SA1091-0				
Q704	8-729-326-11	TRANSISTOR 2SC2611				
	3-704-359-01	SCREW (M3X10), SW (+) P; Q704				
Q705	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q706	8-729-200-17	TRANSISTOR 2SA1091-0				
Q707	8-729-200-17	TRANSISTOR 2SA1091-0				
Q708	8-729-326-11	TRANSISTOR 2SC2611				
	3-704-359-01	SCREW (M3X10), SW (+) P; Q708				
Q709	8-729-119-78	TRANSISTOR 2SC2785-HFE				
		<RESISTOR>				
R702	1-202-883-11	SOLID	680K	20%	1/2W	
R703	1-202-838-00	SOLID	100K	20%	1/2W	
R706	1-202-815-11	SOLID	47K	20%	1/2W	
R707	1-202-842-11	SOLID	220K	20%	1/2W	
R708	1-202-824-00	SOLID	3.3K	20%	1/2W	
R709	1-202-824-00	SOLID	3.3K	20%	1/2W	
R710	1-202-824-00	SOLID	3.3K	20%	1/2W	
R713	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R714	1-249-409-11	CARBON	220	5%	1/4W	
R715	1-202-549-00	SOLID	100	20%	1/2W	
R716	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R717	1-249-409-11	CARBON	220	5%	1/4W	
R718	1-249-409-11	CARBON	220	5%	1/4W	
R720	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R723	1-249-405-11	CARBON	100	5%	1/4W	
R724	1-249-405-11	CARBON	100	5%	1/4W	
R726	1-249-416-11	CARBON	820	5%	1/4W	
R728	1-249-415-11	CARBON	680	5%	1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R729	1-249-405-11	CARBON	100	5%	1/4W	
R730	1-249-412-11	CARBON	390	5%	1/4W	
R731	1-247-713-11	CARBON	1K	5%	1/4W	F
R732	1-247-713-11	CARBON	1K	5%	1/4W	F
R733	1-247-713-11	CARBON	1K	5%	1/4W	F
R735	1-249-423-11	CARBON	3.3K	5%	1/4W	
R739	1-215-453-00	METAL	22K	1%	1/4W	
R742	1-215-474-00	METAL	160K	1%	1/4W	
R743	1-215-461-00	METAL	47K	1%	1/4W	
R744	1-215-463-00	METAL	56K	1%	1/4W	
R748	1-216-367-11	METAL OXIDE	0.68	5%	2W	F
R749	1-249-415-11	CARBON	680	5%	1/4W	
R751	1-249-401-11	CARBON	47	5%	1/4W	
R752	1-249-401-11	CARBON	47	5%	1/4W	
R753	1-249-401-11	CARBON	47	5%	1/4W	
R754	1-249-415-11	CARBON	680	5%	1/4W	
R755	1-249-423-11	CARBON	3.3K	5%	1/4W	
		<VARIABLE RESISTOR>				
RV701	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M				
RV702 ⚠	1-241-714-12	RES, ADJ, METAL FILM 110M				
RV704	1-228-991-00	RES, ADJ, CARBON 2.2K				
RV705	1-228-991-00	RES, ADJ, CARBON 2.2K				

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*A-1342-186-A VM BOARD, COMPLETE
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*4-341-751-01 EYELET (EY5)
*4-341-752-01 EYELET (EY1~EY4)

REF.NO.	PART NO.	DESCRIPTION				REMARK
		<CAPACITOR>				
C1751	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C1752	1-102-125-00	CERAMIC	0.0047MF	10%	50V	
C1761	1-161-830-00	CERAMIC	0.0047MF		500V	
C1762	1-102-951-00	CERAMIC	15PF	5%	50V	
C1763	1-123-935-00	ELECT	33MF	20%	160V	
C1764	1-126-101-11	ELECT	100MF	20%	16V	
C1768	1-106-383-00	MYLAR	0.047MF		200V	
C1769	1-124-799-11	ELECT	2.2MF	20%	160V	
C1770	1-106-391-12	MYLAR	0.1MF	10%	200V	
C1771	1-126-157-11	ELECT	10MF	20%	16V	
C1772	1-124-119-00	ELECT	330MF	20%	16V	
C1773	1-106-383-00	MYLAR	0.047MF		200V	
C1774	1-102-959-00	CERAMIC	22PF	5%	50V	
C1775	1-126-101-11	ELECT	100MF	20%	16V	
C1776	1-126-157-11	ELECT	10MF	20%	16V	
C1777	1-102-963-00	CERAMIC	33PF	5%	50V	
C1778	1-130-471-00	MYLAR	0.001MF	5%	50V	
C1779	1-130-471-00	MYLAR	0.001MF	5%	50V	
C1780	1-126-157-11	ELECT	10MF	20%	16V	
		<CONNECTOR>				
CN1763	*1-564-512-11	PLUG, CONNECTOR 9P				
		<DIODE>				
D1761	8-719-911-19	DIODE 1SS119				
D1763	8-719-911-19	DIODE 1SS119				
D1764	8-719-911-19	DIODE 1SS119				
D1765	8-719-911-19	DIODE 1SS119				
D1766	8-719-911-19	DIODE 1SS119				

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

VM **D**

REF.NO.	PART NO.	DESCRIPTION				REMARK
D1767	8-719-110-88	DIODE RD39ES-B2				
D1768	8-719-110-88	DIODE RD39ES-B2				

<COIL>

REF.NO.	PART NO.	DESCRIPTION				REMARK
L1762	1-408-416-00	INDUCTOR	39UH			

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
Q1756	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1761	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1762	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q1763	8-729-208-39	TRANSISTOR 2SA1306A-Y				
	4-382-854-11	SCREW (M3X10), P, SW (+); Q1763				
Q1764	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1765	8-729-208-72	TRANSISTOR 2SC3298B-Y				
	4-382-854-11	SCREW (M3X10), P, SW (+); Q1765				
Q1766	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1767	8-729-142-86	TRANSISTOR 2SC3733				

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1736	1-249-419-11	CARBON	1.5K	5%	1/4W	
R1751	1-249-434-11	CARBON	27K	5%	1/4W	
R1752	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1753	1-249-405-11	CARBON	100	5%	1/4W	
R1754	1-247-903-00	CARBON	1M	5%	1/4W	
R1755	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1762	1-249-409-11	CARBON	220	5%	1/4W	
R1764	1-247-734-11	CARBON	39	5%	1/2W	F
R1765	1-249-414-11	CARBON	560	5%	1/4W	F
R1766	1-249-418-11	CARBON	1.2K	5%	1/4W	
R1768	1-249-418-11	CARBON	1.2K	5%	1/4W	
R1769	1-249-384-11	CARBON	1.8	5%	1/4W	F
R1770	1-249-435-11	CARBON	33K	5%	1/4W	
R1772	1-249-432-11	CARBON	18K	5%	1/4W	
R1774	1-216-476-11	METAL OXIDE	180	5%	3W	F
R1775	1-249-417-11	CARBON	1K	5%	1/4W	F
R1776	1-249-432-11	CARBON	18K	5%	1/4W	
R1777	1-249-438-11	CARBON	56K	5%	1/4W	
R1778	1-249-430-11	CARBON	12K	5%	1/4W	
R1779	1-249-414-11	CARBON	560	5%	1/4W	
R1780	1-249-420-11	CARBON	1.8K	5%	1/4W	
R1781	1-249-415-11	CARBON	680	5%	1/4W	
R1782	1-249-384-11	CARBON	1.8	5%	1/4W	F
R1783	1-249-441-11	CARBON	100K	5%	1/4W	
R1784	1-249-405-11	CARBON	100	5%	1/4W	
R1785	1-249-400-11	CARBON	39	5%	1/4W	F
R1786	1-249-435-11	CARBON	33K	5%	1/4W	
R1787	1-249-428-11	CARBON	8.2K	5%	1/4W	
R1788	1-249-418-11	CARBON	1.2K	5%	1/4W	
R1789	1-249-413-11	CARBON	470	5%	1/4W	
R1790	1-216-451-11	METAL OXIDE	120	5%	2W	F
R1791	1-249-411-11	CARBON	330	5%	1/4W	

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REF.NO.	PART NO.	DESCRIPTION	REMARK
	*A-1346-075-A	D BOARD, COMPLETE (KV-S29JN1,S29MN1) *****************	
	*A-1346-110-A	D BOARD, COMPLETE (KV-S29SN1) *****************	
	*A-1346-064-A	D BOARD, COMPLETE (KV-S34JN1) *****************	
	*A-1346-106-A	D BOARD, COMPLETE (KV-S34MN1) *****************	
	*A-1346-107-A	D BOARD, COMPLETE (KV-S34SN1) *****************	
	*4-341-751-01	EYELET (EY1~EY7,EY20~EY27,EY35~EY41, EY47~EY60,EY62~EY69,EY78~EY96,EY99~EY104)	
	*4-341-752-01	EYELET (EY8~EY19,EY28~EY34,EY42~EY46, EY70~EY77)	

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C501	1-130-471-00	FILM	0.001MF	5%	50V	
C503	1-136-161-00	FILM	0.047MF	5%	50V	
C504	1-124-465-00	ELECT	0.47MF	20%	50V	
C505	1-130-473-00	MYLAR	0.0015MF	5%	50V	
			(KV-S29JN1,S29MN1,S29SN1)			
	1-130-474-00	MYLAR	0.0018MF	5%	50V	
			(KV-S34JN1,S34MN1,S34SN1)			
C506	1-136-165-00	FILM	0.1MF	5%	50V	
C507	1-124-480-11	ELECT	470MF	20%	25V	
C509	1-130-471-00	MYLAR	0.001MF	5%	50V	
C510	1-126-529-11	ELECT	0.47MF	20%	50V	
C511	1-126-233-11	ELECT	22MF	20%	50V	
C512	1-130-491-00	MYLAR	0.047MF	5%	50V	
C513	1-124-477-11	ELECT	47MF	20%	25V	
C514	1-124-790-11	ELECT	0.47MF	20%	100V	
C515	1-126-233-11	ELECT	22MF	20%	50V	
C516	1-124-791-11	ELECT	1MF	20%	50V	
C517	1-102-114-00	CERAMIC	470PF	10%	50V	
C518	1-124-499-11	ELECT	1MF	20%	50V	
C519	1-102-110-00	CERAMIC	220PF	10%	50V	
C520	1-102-942-00	CERAMIC	5PF	0.5PF	50V	
C521	1-124-480-11	ELECT	470MF	20%	25V	
C522	1-124-261-00	ELECT	10MF	20%	50V	
C523	1-130-471-00	MYLAR	0.001MF	5%	50V	
C524	1-162-318-11	CERAMIC	0.001MF	10%	500V	
C525	1-130-495-00	MYLAR	0.1MF	5%	50V	
C526	1-126-176-11	ELECT	220MF	20%	10V	
C527	1-124-911-11	ELECT	220MF	20%	50V	
C528	1-162-117-00	CERAMIC	100PF	10%	500V	
C529	1-136-171-00	FILM	0.33MF	5%	50V	
C530	1-106-222-00	MYLAR	0.12MF	10%	100V	
C531	1-130-471-00	MYLAR	0.001MF	5%	50V	
C532	1-106-391-12	MYLAR	0.1MF	10%	200V	
C533	1-130-651-00	FILM	0.001MF	2%	100V	
C534	1-162-132-00	CERAMIC	270PF	10%	2KV	
C535	1-124-472-11	ELECT	470MF	20%	10V	
C537	1-106-355-12	MYLAR	0.0033MF		200V	
C538	1-137-514-21	FILM	0.021MF	2%	200 V	
C539 ⚠	1-162-116-91	CERAMIC	680PF	10%	2KV	
C540	1-136-161-00	FILM	0.047MF	5%	50V	
C541	1-137-515-11	FILM	0.056MF	3%	400V	
C542 ⚠	1-162-116-91	CERAMIC	680PF	10%	2KV	
C543 ⚠	1-162-116-91	CERAMIC	680PF	10%	2KV	
C544	1-130-495-00	MYLAR	0.1MF	5%	50V	
C545	1-124-510-11	ELECT	220MF	20%	25V	
			(KV-S29JN1,S29MN1,S29SN1)			
	1-124-480-11	ELECT	470MF	20%	25V	
			(KV-S34JN1,S34MN1,S34SN1)			
C546	1-130-487-00	MYLAR	0.022MF	5%	50V	
C547	1-106-359-00	MYLAR	0.0047MF	10%	200V	
C549	1-124-477-11	ELECT	47MF	20%	25V	
C550	1-137-114-11	FILM	0.68MF	5%	200V	
C551	1-136-167-00	FILM	0.15MF	5%	50V	
C553	1-136-105-00	FILM	0.33MF	5%	200V	

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REF.NO.	PART NO.	DESCRIPTION				REMARK
C554	1-124-808-51	ELECT	10MF	20%	200V	
C555	1-137-516-11	FILM	1.2MF	5%	200V	
C556	1-124-514-11	ELECT	100MF	20%	50V	
C557	1-124-477-11	ELECT	47MF	20%	25V	
C558	1-102-038-00	CERAMIC	0.001MF		500V	
C560	1-106-391-12	MYLAR	0.1MF	10%	200V	
C561	1-102-244-00	CERAMIC	220PF	10%	500V	
C563	1-106-343-00	MYLAR	0.001MF	10%	100V	
C565	1-130-495-00	MYLAR	0.1MF	5%	50V	
C566	1-124-261-00	ELECT	10MF	20%	50V	
C567	1-124-480-11	ELECT	470MF	20%	25V	
C568	1-102-228-00	CERAMIC	470PF	10%	500V	
C569	1-136-161-00	FILM	0.047MF	5%	50V	
C570	1-124-120-11	ELECT	220MF	20%	25V	(KV-S29JN1,S29MN1,S29SN1)
C571	1-130-467-00	MYLAR	470PF	5%	50V	
C575	1-137-116-11	FILM	1MF	5%	200V	(KV-S29JN1,S29MN1,S29SN1)
	1-137-114-11	FILM	0.68MF	5%	200V	(KV-S34JN1,S34MN1,S34SN1)
C577	1-123-947-00	ELECT	10MF	20%	250V	
C578	1-124-907-11	ELECT	10MF	20%	50V	
C579	1-123-950-00	ELECT	47MF	20%	250V	
C581	1-124-480-11	ELECT	470MF	20%	25V	
C582	1-102-228-00	CERAMIC	470PF	10%	500V	
C583	1-124-910-11	ELECT	47MF	20%	50V	
C585	1-136-497-81	FILM	0.1MF	5%	50V	
C586	1-106-387-00	MYLAR	0.068MF	10%	200V	
C587	1-129-898-00	FILM	0.0022MF	5%	630V	
C588	1-136-169-00	FILM	0.22MF	5%	50V	
C589	1-124-347-00	ELECT	100MF	20%	160V	
C590	1-102-244-00	CERAMIC	220PF	10%	500V	
C592	1-129-702-00	FILM	0.001MF	10%	630V	
C593	1-162-114-00	CERAMIC	0.0047MF		2KV	
C594	1-136-314-91	FILM	0.022MF	5%	630V	
C595	1-124-797-11	ELECT	0.47MF	20%	160V	
C600	1-130-495-00	MYLAR	0.1MF	5%	50V	

<CONNECTOR>

CN501	*1-564-513-11	PLUG, CONNECTOR 10P
CN502	1-573-296-11	CONNECTOR, BOARD TO BOARD 10P
CN503	*1-573-964-11	PIN, CONNECTOR (PC BOARD) 6P
CN504	*1-580-798-11	CONNECTOR PIN (DY) 6P
CN505	*1-564-513-11	PLUG, CONNECTOR 10P
CN506	*1-573-986-11	PIN, CONNECTOR (PC BOARD) 5P
CN507	1-573-296-11	CONNECTOR, BOARD TO BOARD 10P
CN508	1-573-296-11	CONNECTOR, BOARD TO BOARD 10P
CN510	*1-508-767-00	PIN, CONNECTOR (5MM PITCH) 5P
CN511	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P

<DIODE>

D501	8-719-911-19	DIODE 1SS119
D502	8-719-109-88	DIODE RD5.6ES-B1
D503	8-719-109-88	DIODE RD5.6ES-B1
D504	8-719-109-93	DIODE RD6.2ES-B2
D505	8-719-911-19	DIODE 1SS119
D506	8-719-911-19	DIODE 1SS119
D507	8-719-911-19	DIODE 1SS119
D508	8-719-911-19	DIODE 1SS119
D509	8-719-911-55	DIODE U05G

REF.NO.	PART NO.	DESCRIPTION				REMARK
D510	8-719-911-19	DIODE 1SS119				
D511	8-719-110-03	DIODE RD7.5ES-B2				
D512	8-719-110-72	DIODE RD30ES-B2				
D513	8-719-300-33	DIODE RU-3AM				
D515	8-719-109-88	DIODE RD5.6ES-B1				
D516	8-719-300-33	DIODE RU-3AM				
D517	8-719-110-78	DIODE RD33ES-B2				
D519	8-719-911-55	DIODE U05G				
D520	8-719-911-19	DIODE 1SS119				
D521	8-719-911-55	DIODE U05G				
D522	8-719-976-64	DIODE RGP02-17				
D523	8-719-109-84	DIODE RD5.1ES-B1				
D524	8-719-312-72	DIODE RU30A				
D526	8-719-911-19	DIODE 1SS119				
D527	8-719-300-33	DIODE RU-3AM				
D528	8-719-979-85	DIODE EGP20G				
D531	8-719-911-19	DIODE 1SS119				
D532	8-719-943-06	DIODE ERB24-06D				
D533	8-719-970-87	DIODE ERA38-06				
D534	8-719-018-82	DIODE RGP02-20EL-6394				
D535	8-719-110-13	DIODE RD9.1ES-B2				
D536	1-249-429-11	CARBON	10K	5%	1/4W	

<IC>

IC501	1-809-538-11	IC PM-26
IC502	8-759-987-16	IC LM393P
IC503	8-759-506-46	IC TDA8179S
	4-382-854-11	SCREW (M3X10), P, SW (+); IC503
IC504	8-759-982-13	IC RC7812FA
	4-382-854-11	SCREW (M3X10), P, SW (+); IC504
IC507	8-759-987-16	IC LM393P
IC508	8-759-142-04	IC UPC7893HF
	4-382-854-11	SCREW (M3X10), P, SW (+); IC508
IC509	8-759-802-23	IC L780S12
	4-382-854-11	SCREW (M3X10), P, SW (+); IC509

<COIL>

L501	1-412-531-31	INDUCTOR	33UH	(KV-S29JN1,S29MN1,S29SN1,S34JN1,S34SN1)
L504	1-410-455-11	INDUCTOR	10MMH	
L505	1-412-531-31	INDUCTOR	33UH	(KV-S29JN1,S29MN1,S29SN1,S34JN1,S34SN1)
L506	1-459-483-00	COIL (WITH CORE)		
L507	1-421-541-00	COIL, CHOKE 1000UH		
L509	1-459-104-00	COIL, WITH CORE		
L510	1-460-197-11	COIL, FERRITE (PMC)		
L511	1-412-519-11	INDUCTOR	3.3UH	
L512	1-459-123-00	COIL,DUST CORE(PAC)		
L513	1-412-519-11	INDUCTOR	3.3UH	
L514	1-412-531-31	INDUCTOR	33UH	(KV-S29JN1,S29MN1,S29SN1,S34JN1,S34SN1)
L516	1-412-552-31	INDUCTOR	2.2MMH	
L517	1-459-104-00	COIL, DUST CORE		

<TRANSISTOR>

Q501	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q502	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q503	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q504	8-729-119-76	TRANSISTOR 2SA1175-HFE

REF.NO.	PART NO.	DESCRIPTION				REMARK
Q505	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q506	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q507	8-729-119-80	TRANSISTOR 2SC2688-LK				
Q508	8-729-140-97	TRANSISTOR 2SB734-34				
Q509	8-729-140-96	TRANSISTOR 2SD774-34				
Q510	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q511	8-729-011-00	TRANSISTOR 2SK1916-53F87				
	4-382-854-11	SCREW (M3X10), P, SW (+); Q511				
Q512	8-729-011-07	TRANSISTOR 2SC4763(LBSONY)				
	4-382-854-11	SCREW (M3X10), P, SW (+); Q512				
Q513	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q514	8-729-900-36	TRANSISTOR DTC124ES				
Q515	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q519	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q520	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q521	8-729-900-36	TRANSISTOR DTC124ES				
Q523	8-729-011-06	TRANSISTOR 2SC3840K				
		<RESISTOR>				
R501	1-215-449-00	METAL	15K	1%	1/4W	
R502	1-249-423-11	CARBON	3.3K	5%	1/4W	
R503	1-249-441-11	CARBON	100K	5%	1/4W	
R504	1-249-441-11	CARBON	100K	5%	1/4W	
R505	1-247-887-00	CARBON	220K	5%	1/4W	
R506	1-249-440-11	CARBON	82K	5%	1/4W	
R507	1-249-425-11	CARBON	4.7K	5%	1/4W	
R508	1-249-435-11	CARBON	33K	5%	1/4W	
R509	1-249-441-11	CARBON	100K	5%	1/4W	
R510	1-249-433-11	CARBON	22K	5%	1/4W	
R511	1-249-425-11	CARBON	4.7K	5%	1/4W	
R512	1-249-433-11	CARBON	22K	5%	1/4W	
R513	1-249-441-11	CARBON	100K	5%	1/4W	
R514	1-249-436-11	CARBON	39K	5%	1/4W	
R515	1-215-468-00	METAL	91K	1%	1/4W	
R516	1-249-425-11	CARBON	4.7K	5%	1/4W	
R517	1-249-433-11	CARBON	22K	5%	1/4W	
R518	1-249-438-11	CARBON	56K	5%	1/4W	
R519	1-215-880-00	METAL OXIDE	10	5%	2W	F
R520	1-249-411-11	CARBON	330	5%	1/4W	F
R521	1-215-449-00	METAL	15K	1%	1/4W	
R522	1-249-425-11	CARBON	4.7K	5%	1/4W	
R524	1-215-433-00	METAL	3.3K	1%	1/4W	
R525	1-215-463-00	METAL	56K	1%	1/4W	
R526	1-249-436-11	CARBON	39K	5%	1/4W	
R527	1-249-431-11	CARBON	15K	5%	1/4W	
R528	1-215-445-00	METAL	10K	1%	1/4W	
R529	1-215-471-00	METAL	120K	1%	1/4W	
R530	1-249-425-11	CARBON	4.7K	5%	1/4W	
R531	1-249-423-11	CARBON	3.3K	5%	1/4W	
R532	1-215-453-00	METAL	22K	1%	1/4W	
R534	1-247-903-00	CARBON	1M	5%	1/4W	
R535	1-249-393-11	CARBON	10	5%	1/4W	F
R536	1-215-455-00	METAL	27K	1%	1/4W	
R537	1-247-755-11	CARBON	1.8K	5%	1/2W	F
R538	1-249-383-11	CARBON	1.5	5%	1/4W	F
R539	1-249-417-11	CARBON	1K	5%	1/4W	
R541	1-215-457-00	METAL	33K	1%	1/4W	
R542	1-215-465-00	METAL	68K	1%	1/4W	
R543	1-215-913-11	METAL OXIDE	220	5%	3W	F
R544	1-249-397-11	CARBON	22	5%	1/4W	F
R545	1-215-441-00	METAL	6.8K	1%	1/4W	
R546	1-216-369-00	METAL OXIDE	1	5%	2W	F
R548	1-215-917-11	METAL OXIDE	1K	5%	3W	F
R549	1-216-481-11	METAL OXIDE	1.2K	5%	3W	F
R550	1-249-393-11	CARBON	10	5%	1/4W	F
R551	1-249-401-11	CARBON	47	5%	1/4W	
R552	1-249-419-11	CARBON	1.5K	5%	1/4W	
R553	1-215-878-00	METAL OXIDE	33K	5%	1W	F
R554	1-249-417-11	CARBON	1K	5%	1/4W	
R555	1-249-432-11	CARBON	18K	5%	1/4W	
R556	1-249-432-11	CARBON	18K	5%	1/4W	
R557	1-249-437-11	CARBON	47K	5%	1/4W	
R558	1-247-887-00	CARBON	220K	5%	1/4W	
R559	1-249-429-11	CARBON	10K	5%	1/4W	
R560	1-215-888-00	METAL OXIDE	220	5%	2W	F
R561	1-249-437-11	CARBON	47K	5%	1/4W	
R562	1-249-431-11	CARBON	15K	5%	1/4W	
R563	1-249-425-11	CARBON	4.7K	5%	1/4W	
R564	1-249-417-11	CARBON	1K	5%	1/4W	F
R566	1-215-883-11	METAL OXIDE	33	5%	2W	F
		(KV-S29JN1,S29MN1,S34JN1,S34SN1)				
	1-216-361-00	METAL OXIDE	0.22	5%	2W	F
		(KV-S29SN1,S34MN1)				
R567	1-215-889-00	METAL OXIDE	330	5%	2W	F
		(KV-S29JN1,S29MN1,S34JN1,S34SN1)				
	1-215-886-11	METAL OXIDE	100	5%	2W	F
		(KV-S29SN1)				
	1-215-885-00	METAL OXIDE	68	5%	2W	F
		(KV-S34MN1)				
R569	1-215-881-11	METAL OXIDE	15	5%	2W	F
R571	1-215-887-00	METAL OXIDE	150	5%	2W	F
		(KV-S29JN1,S29MN1,S34JN1,S34SN1)				
	1-215-889-00	METAL OXIDE	330	5%	2W	F
		(KV-S29SN1)				
R572	1-215-909-11	METAL OXIDE	47	5%	3W	F
		(KV-S29JN1,S29MN1,S29SN1,S34JN1,S34SN1)				
	1-215-912-11	METAL OXIDE	150	5%	3W	F
		(KV-S34MN1)				
R573	1-249-440-11	CARBON	82K	5%	1/4W	
R574	1-247-903-00	CARBON	1M	5%	1/4W	
R575	1-249-429-11	CARBON	10K	5%	1/4W	
R576	1-249-417-11	CARBON	1K	5%	1/4W	
R577	1-249-389-11	CARBON	4.7	5%	1/4W	F
R578	1-247-743-11	CARBON	220	5%	1/2W	F
R579	1-249-417-11	CARBON	1K	5%	1/4W	
R581	1-249-421-11	CARBON	2.2K	5%	1/4W	
R582	1-249-424-11	CARBON	3.9K	5%	1/4W	
R585	1-249-429-11	CARBON	10K	5%	1/4W	
R586	1-249-437-11	CARBON	47K	5%	1/4W	
R588	1-249-415-11	CARBON	680	5%	1/4W	
R590	1-249-438-11	CARBON	56K	5%	1/4W	
R593	1-249-441-11	CARBON	100K	5%	1/4W	
R594	1-249-437-11	CARBON	47K	5%	1/4W	
R597	1-247-705-11	CARBON	270	5%	1/4W	F
R603	1-215-450-00	METAL	16K	1%	1/4W	
R605	1-249-402-11	CARBON	56	5%	1/4W	
R606	1-249-411-11	CARBON	330	5%	1/4W	
R607	1-215-882-00	METAL OXIDE	22	5%	2W	F
R608	1-247-901-11	CARBON	820K	5%	1/4W	
R609	1-249-441-11	CARBON	100K	5%	1/4W	
R612	1-249-443-11	CARBON	0.47	5%	1/4W	F
R614	1-249-435-11	CARBON	33K	5%	1/4W	
R616	1-249-443-11	CARBON	0.47	5%	1/4W	F

D **V**

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R623	1-259-882-11	CARBON	3.3M	5%	1/4W	
R624	1-216-439-00	METAL OXIDE	12K	5%	1W	F
R625	1-216-459-00	METAL OXIDE	2.7K	5%	2W	F
R627	1-216-459-00	METAL OXIDE	2.7K	5%	2W	F
R628	1-249-398-11	CARBON	27	5%	1/4W	F
R630	1-215-869-11	METAL OXIDE	1K	5%	1W	F
R634	1-249-441-11	CARBON	100K	5%	1/4W	
R635	1-249-441-11	CARBON	100K	5%	1/4W	
R636	1-249-441-11	CARBON	100K	5%	1/4W	

<SPARK GAP>

REF.NO.	PART NO.	DESCRIPTION	REMARK
SG501	1-519-422-11	GAP, SPARK	

<TRANSFORMER>

REF.NO.	PART NO.	DESCRIPTION	REMARK
T501	1-437-195-11	TRANSFORMER, HORIZONTAL DRIVE	
T502	1-460-199-11	TRANSFORMER (HLT)	
T503 ⚠	1-439-524-11	TRANSFORMER ASSY, FLYBACK (NX-3000A2)	
T504	1-424-584-11	TRANSFORMER, DYNAMIC FOCUS	

<THERMISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
THP501 ⚠	1-807-925-11	THERMISTOR	

****

*A-1347-062-A V BOARD, COMPLETE
****

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C01	1-126-101-11	ELECT	100MF	20%	16V	
C02	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C03	1-124-120-11	ELECT	220MF	20%	16V	
C04	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C05	1-124-120-11	ELECT	220MF	20%	16V	
C06	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C07	1-163-093-00	CERAMIC CHIP	10PF	5%	50V	
C08	1-163-097-00	CERAMIC CHIP	15PF	5%	50V	
C09	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V	
C10	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C11	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C12	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C13	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C14	1-126-101-11	ELECT	100MF	20%	16V	
C15	1-124-927-11	ELECT	4.7MF	20%	50V	
C16	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V	
C17	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V	
C23	1-216-295-00	METAL GLAZE	0	5%	1/10W	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN01	*1-565-393-11	CONNECTOR, BOARD TO BOARD	
CN02	*1-565-393-11	CONNECTOR, BOARD TO BOARD	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D01	8-719-105-92	DIODE RD5.6M-B3	
D03	8-719-914-44	DIODE DAP202K	
D04	8-719-400-18	DIODE MA152WK	
D05	8-719-914-44	DIODE DAP202K	
D06	8-719-400-18	DIODE MA152WK	
D07	8-719-105-52	DIODE RD3.6M-B2	
D14	8-719-911-19	DIODE 1SS119	
D15	8-719-911-19	DIODE 1SS119	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC01	8-759-067-58	IC MAB8461P-W220	
IC02	8-759-067-32	IC SAA5246AP/T	
IC03	8-752-331-22	IC CXK5864BSP-10L	
IC04	8-759-340-13	IC HD14013BP	

<COIL>

REF.NO.	PART NO.	DESCRIPTION		REMARK
L01	1-410-322-11	INDUCTOR	3.3UH	
L02	1-408-407-00	INDUCTOR	6.8UH	
L03	1-408-407-00	INDUCTOR	6.8UH	
L04	1-408-407-00	INDUCTOR	6.8UH	

<IC LINK>

REF.NO.	PART NO.	DESCRIPTION	REMARK
PS01 ⚠	1-532-679-91	LINK, IC 0.6A	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q01	8-729-900-53	TRANSISTOR DTC114EK	
Q02	8-729-209-15	TRANSISTOR 2SD2012	
Q03	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q04	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q05	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q06	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q07	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q08	8-729-920-74	TRANSISTOR 2SC2412K-QR	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
JR01	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR02	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR03	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR04	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR05	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR06	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR07	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR08	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR09	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR10	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR11	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR12	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR13	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR14	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR15	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR17	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR18	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR24	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR28	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR29	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR31	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR32	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR33	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR36	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR37	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR39	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR40	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR41	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR208	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR209	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR210	1-216-295-00	METAL GLAZE	0	5%	1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
JR224	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R01	1-218-326-11	METAL GLAZE	470	5%	1/2W	
R02	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W	
R03	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R04	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R05	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R07	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R08	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R09	1-216-308-00	METAL GLAZE	4.7	5%	1/10W	
R10	1-218-325-11	METAL GLAZE	120	5%	1/4W	
R11	1-218-325-11	METAL GLAZE	120	5%	1/4W	
R12	1-218-325-11	METAL GLAZE	120	5%	1/4W	
R13	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R14	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R15	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R16	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R17	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R18	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R19	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R21	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R22	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R23	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W	
R24	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R25	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R26	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R29	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R30	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R31	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R32	1-216-678-11	METAL CHIP	13K	0.50%	1/10W	
R33	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R34	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R35	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R36	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R37	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R38	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R39	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R40	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R41	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R42	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R44	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R46	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R47	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R48	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R49	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R50	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R51	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R52	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R59	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R60	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R62	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	

<VARIABLE RESISTOR>

RV01	1-241-627-11	RES, ADJ, CARBON 1K

<CRYSTAL>

X01	1-579-266-31	CRYSTAL VIBRATOR
X03	1-577-082-11	VIBRATOR, CERAMIC

****

*A-1347-064-A VC BOARD, COMPLETE
****
(KV-S29JN1,S29MN1,S29SN1)

*A-1347-063-A VC BOARD, COMPLETE
****
(KV-S34JN1,S34MN1,S34SN1)

*4-341-751-01 EYELET (EY1801~EY1808)

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C1801	1-124-478-11	ELECT	100MF	20%	25V	
C1802	1-124-478-11	ELECT	100MF	20%	25V	
C1803	1-137-372-11	FILM	0.022MF	5%	50V	
C1804	1-102-973-00	CERAMIC	100PF	5%	50V	
C1805	1-130-471-00	FILM	0.001MF	5%	50V	
C1806	1-130-487-00	MYLAR	0.022MF	5%	50V	
C1807	1-130-471-00	MYLAR	0.001MF	5%	50V	
C1808	1-102-228-00	CERAMIC	470PF	10%	500V	
C1809	1-124-798-11	ELECT	1MF	20%	160V	
C1810	1-130-495-00	MYLAR	0.1MF	5%	50V	
C1811	1-124-798-11	ELECT	1MF	20%	160V	
C1812	1-136-104-00	FILM	0.16MF	5%	200V	(KV-S29JN1,S29MN1,S29SN1)
	1-136-756-11	FILM	0.24MF	5%	200V	(KV-S34JN1,S34MN1,S34SN1)
C1813	1-129-765-00	FILM	0.047MF	10%	200V	(KV-S29JN1,S29MN1,S29SN1)

<CONNECTOR>

CN1801	*1-573-299-11	CONNECTOR, BOARD TO BOARD 10P

<DIODE>

D1801	8-719-911-19	DIODE 1SS119
D1802	8-719-911-19	DIODE 1SS119
D1803	8-719-300-33	DIODE RU-3AM
D1804	8-719-300-33	DIODE RU-3AM
D1805	8-719-300-33	DIODE RU-3AM

<IC>

IC1801	8-759-987-16	IC LM393P
IC1802	8-759-987-16	IC LM393P
IC1803	8-759-708-09	IC NJM78L09A

<COIL>

L1801	1-460-200-11	COIL (WITH CORE)

<TRANSISTOR>

Q1801	8-729-012-26	TRANSISTOR IRF540Y
Q1802	8-729-012-26	TRANSISTOR IRF540Y
Q1803	8-729-931-45	TRANSISTOR IRF614

<RESISTOR>

R1801	1-249-435-11	CARBON	33K	5%	1/4W	
R1802	1-249-417-11	CARBON	1K	5%	1/4W	
R1803	1-247-887-00	CARBON	220K	5%	1/4W	
R1804	1-249-437-11	CARBON	47K	5%	1/4W	
R1805	1-247-895-00	CARBON	470K	5%	1/4W	
R1806	1-249-427-11	CARBON	6.8K	5%	1/4W	(KV-S29JN1,S29MN1,S29SN1)
	1-249-428-11	CARBON	8.2K	5%	1/4W	(KV-S34JN1,S34MN1,S34SN1)

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1807	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1808	1-249-426-11	CARBON	5.6K	5%	1/4W	
R1809	1-249-433-11	CARBON	22K	5%	1/4W	
R1810	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1811	1-216-463-00	METAL OXIDE	12K	5%	2W	F
R1812	1-215-875-11	METAL OXIDE	10K	5%	1W	F
R1813	1-249-405-11	CARBON	100	5%	1/4W	
R1814	1-249-441-11	CARBON	100K	5%	1/4W	
R1815	1-215-869-11	METAL OXIDE	1K	5%	1W	F
R1816	1-249-434-11	CARBON	27K	5%	1/4W	
						(KV-S29JN1,S29MN1,S29SN1)
	1-249-437-11	CARBON	47K	5%	1/4W	
						(KV-S34JN1,S34MN1,S34SN1)
R1817	1-249-441-11	CARBON	100K	5%	1/4W	
R1818	1-249-406-11	CARBON	120	5%	1/4W	

<VARIABLE RESISTOR>

REF.NO.	PART NO.	DESCRIPTION
RV1801	1-228-993-00	RES, ADJ, METAL GLAZE 4.7K
	3-710-578-01	COVER, VOLUME, 6 MOLD; RV1801

<TRANSFORMER>

REF.NO.	PART NO.	DESCRIPTION
T1801	1-437-212-11	TRANSFORMER, FERRITE (VPDT)

****

*1-643-890-11 H1 BOARD
****

*4-341-751-01 EYELET (EY901~EY903)

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			
C906	1-124-234-00	ELECT	22MF	20%	16V
C907	1-101-004-00	CERAMIC	0.01MF		50V
C908	1-124-234-00	ELECT	22MF	20%	16V
C909	1-124-465-00	ELECT	0.47MF	20%	50V
C910	1-124-465-00	ELECT	0.47MF	20%	50V

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION
CN901	*1-564-509-11	PLUG, CONNECTOR 6P
CN902	*1-564-506-11	PLUG, CONNECTOR 3P
CN903	*1-564-514-11	PLUG, CONNECTOR 11P
CN904	*1-564-513-11	PLUG, CONNECTOR 10P
CN905	*1-564-505-11	PLUG, CONNECTOR 2P
CN906	*1-564-507-11	PLUG, CONNECTOR 4P

<DIODE>

REF.NO.	PART NO.	DESCRIPTION
D911	8-719-108-12	DIODE RD9.1E-W
D912	8-719-108-12	DIODE RD9.1E-W
D913	8-719-108-12	DIODE RD9.1E-W
D914	8-719-110-13	DIODE RD9.1ES-B2
D915	8-719-108-12	DIODE RD9.1E-W
D916	8-719-108-12	DIODE RD9.1E-W
D917	8-719-109-93	DIODE RD6.2ES-B2

<JACK>

REF.NO.	PART NO.	DESCRIPTION
J901	1-562-837-11	JACK
J902	1-507-967-21	JACK
J903	1-568-678-11	TERMINAL BLOCK, S 3P

<COIL>

REF.NO.	PART NO.	DESCRIPTION		REMARK
L901	1-410-470-11	INDUCTOR	10UH	
L902	1-410-470-11	INDUCTOR	10UH	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R901	1-249-425-11	CARBON	4.7K	5%	1/4W	
R902	1-249-423-11	CARBON	3.3K	5%	1/4W	
R903	1-249-426-11	CARBON	5.6K	5%	1/4W	
R904	1-249-428-11	CARBON	8.2K	5%	1/4W	
R905	1-247-804-11	CARBON	75	5%	1/4W	
R906	1-247-804-11	CARBON	75	5%	1/4W	
R907	1-247-804-11	CARBON	75	5%	1/4W	
R908	1-247-883-00	CARBON	150K	5%	1/4W	
R909	1-247-883-00	CARBON	150K	5%	1/4W	
R910	1-249-409-11	CARBON	220	5%	1/4W	
R911	1-249-409-11	CARBON	220	5%	1/4W	
R912	1-249-409-11	CARBON	220	5%	1/4W	
R913	1-249-409-11	CARBON	220	5%	1/4W	
R914	1-249-425-11	CARBON	4.7K	5%	1/4W	
R915	1-249-425-11	CARBON	4.7K	5%	1/4W	

<SWITCH>

REF.NO.	PART NO.	DESCRIPTION
S901	1-692-220-11	SWITCH, TACTILE
S902	1-692-220-11	SWITCH, TACTILE
S903	1-692-220-11	SWITCH, TACTILE
S904	1-692-220-11	SWITCH, TACTILE
S921	1-572-525-11	SWITCH, PUSH (1 KEY)

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*1-643-891-11 H2 BOARD
****

*4-341-751-01 EYELET (EY1909)
*4-341-752-01 EYELET (EY1901~EY1908)

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			
C1911	1-124-477-11	ELECT	47MF	20%	16V
C1912	1-102-114-00	CERAMIC	470PF	10%	50V
C1913	1-124-477-11	ELECT	47MF	20%	16V

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION
CN1901	*1-564-511-11	PLUG, CONNECTOR 8P
CN1904	*1-580-844-11	PIN, CONNECTOR (POWER)
CN1905	*1-691-961-11	PIN, CONNECTOR (PC BOARD) 2P

<DIODE>

REF.NO.	PART NO.	DESCRIPTION
D1901	1-809-865-11	LED UNIT
D1902	1-809-865-11	LED UNIT
D1903	1-809-865-11	LED UNIT
D1904	1-809-865-11	LED UNIT
D1905	1-809-865-11	LED UNIT

<IC>

REF.NO.	PART NO.	DESCRIPTION
IC1901	8-741-100-62	IC SBX1618-51

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION
Q1901	8-729-900-89	TRANSISTOR DTC144ES
Q1902	8-729-900-89	TRANSISTOR DTC144ES

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
Q1903	8-729-900-89	TRANSISTOR DTC144ES				
Q1904	8-729-900-89	TRANSISTOR DTC144ES				
Q1905	8-729-900-89	TRANSISTOR DTC144ES				

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1901	1-249-413-11	CARBON	470	5%	1/4W	
R1902	1-249-413-11	CARBON	470	5%	1/4W	
R1903	1-249-413-11	CARBON	470	5%	1/4W	
R1904	1-249-413-11	CARBON	470	5%	1/4W	
R1905	1-249-413-11	CARBON	470	5%	1/4W	
R1911	1-249-401-11	CARBON	47	5%	1/4W	

<SWITCH>

REF.NO.	PART NO.	DESCRIPTION	REMARK
S1901⚠	1-571-433-12	SWITCH, PUSH (AC POWER)	

****

*A-1388-143-A J BOARD, COMPLETE
****

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C2301	1-101-004-00	CERAMIC	0.01MF		50V	
C2302	1-101-004-00	CERAMIC	0.01MF		50V	
C2303	1-101-004-00	CERAMIC	0.01MF		50V	
C2304	1-101-004-00	CERAMIC	0.01MF		50V	
C2305	1-101-004-00	CERAMIC	0.01MF		50V	
C2306	1-126-233-11	ELECT	22MF	20%	25V	
C2307	1-126-233-11	ELECT	22MF	20%	25V	
C2308	1-126-233-11	ELECT	22MF	20%	25V	
C2309	1-126-233-11	ELECT	22MF	20%	25V	
C2310	1-126-233-11	ELECT	22MF	20%	25V	
C2311	1-126-103-11	ELECT	470MF	20%	16V	
C2312	1-126-103-11	ELECT	470MF	20%	16V	
C2313	1-124-902-00	ELECT	0.47MF	20%	50V	
C2314	1-124-902-00	ELECT	0.47MF	20%	50V	
C2315	1-124-902-00	ELECT	0.47MF	20%	50V	
C2316	1-124-902-00	ELECT	0.47MF	20%	50V	
C2317	1-126-103-11	ELECT	470MF	20%	16V	
C2318	1-126-103-11	ELECT	470MF	20%	16V	
C2319	1-124-902-00	ELECT	0.47MF	20%	50V	
C2320	1-124-902-00	ELECT	0.47MF	20%	50V	
C2321	1-126-103-11	ELECT	470MF	20%	16V	
C2322	1-126-103-11	ELECT	470MF	20%	16V	
C2323	1-124-902-00	ELECT	0.47MF	20%	50V	
C2324	1-124-902-00	ELECT	0.47MF	20%	50V	
C2325	1-124-903-11	ELECT	1MF	20%	50V	
C2326	1-124-903-11	ELECT	1MF	20%	50V	
C2327	1-124-903-11	ELECT	1MF	20%	50V	
C2328	1-124-903-11	ELECT	1MF	20%	50V	
C2329	1-124-903-11	ELECT	1MF	20%	50V	
C2330	1-124-903-11	ELECT	1MF	20%	50V	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN2301	*1-565-928-11	CONNECTOR (TUB) 30P	
CN2302	*1-566-641-11	CONNECTOR, HINGE (TAB) 18P	
CN2303	*1-564-517-11	PLUG, CONNECTOR 2P	
CN2304	*1-564-519-11	PLUG, CONNECTOR 4P	
CN2305	*1-564-517-11	PLUG, CONNECTOR 2P	
CN2307	*1-564-517-11	PLUG, CONNECTOR 2P	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D2301	8-719-110-13	DIODE RD9.1ES-B2	
D2302	8-719-110-13	DIODE RD9.1ES-B2	
D2303	8-719-110-13	DIODE RD9.1ES-B2	
D2304	8-719-110-13	DIODE RD9.1ES-B2	
D2305	8-719-110-13	DIODE RD9.1ES-B2	
D2306	8-719-110-13	DIODE RD9.1ES-B2	
D2307	8-719-110-13	DIODE RD9.1ES-B2	
D2308	8-719-110-13	DIODE RD9.1ES-B2	
D2309	8-719-110-13	DIODE RD9.1ES-B2	
D2310	8-719-110-13	DIODE RD9.1ES-B2	
D2311	8-719-110-13	DIODE RD9.1ES-B2	
D2312	8-719-110-13	DIODE RD9.1ES-B2	
D2313	8-719-110-13	DIODE RD9.1ES-B2	
D2314	8-719-110-13	DIODE RD9.1ES-B2	
D2315	8-719-110-13	DIODE RD9.1ES-B2	
D2316	8-719-110-13	DIODE RD9.1ES-B2	
D2317	8-719-110-13	DIODE RD9.1ES-B2	
D2318	8-719-110-13	DIODE RD9.1ES-B2	
D2319	8-719-110-13	DIODE RD9.1ES-B2	
D2320	8-719-110-13	DIODE RD9.1ES-B2	
D2321	8-719-110-13	DIODE RD9.1ES-B2	
D2322	8-719-110-13	DIODE RD9.1ES-B2	
D2323	8-719-110-13	DIODE RD9.1ES-B2	
D2324	8-719-110-13	DIODE RD9.1ES-B2	
D2325	8-719-110-13	DIODE RD9.1ES-B2	
D2326	8-719-110-13	DIODE RD9.1ES-B2	
D2327	8-719-110-13	DIODE RD9.1ES-B2	
D2328	8-719-110-13	DIODE RD9.1ES-B2	
D2329	8-719-110-13	DIODE RD9.1ES-B2	
D2330	8-719-110-13	DIODE RD9.1ES-B2	
D2331	8-719-110-13	DIODE RD9.1ES-B2	
D2332	8-719-110-13	DIODE RD9.1ES-B2	

<JACK>

REF.NO.	PART NO.	DESCRIPTION	REMARK
J2301	1-573-967-11	BLOCK, (S) TERMINAL	
J2302	1-573-967-11	BLOCK, (S) TERMINAL	
J2303	1-573-971-11	JACK BLOCK, PIN	
J2304	1-573-970-11	BLOCK, (S) TERMINAL	
J2305	1-573-969-11	JACK BLOCK, PIN	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R2301	1-249-403-11	CARBON	68	5%	1/4W	
R2302	1-249-403-11	CARBON	68	5%	1/4W	
R2303	1-249-403-11	CARBON	68	5%	1/4W	
R2304	1-247-804-11	CARBON	75	5%	1/4W	
R2305	1-247-804-11	CARBON	75	5%	1/4W	
R2306	1-247-883-00	CARBON	150K	5%	1/4W	
R2307	1-247-883-00	CARBON	150K	5%	1/4W	
R2308	1-247-804-11	CARBON	75	5%	1/4W	
R2309	1-247-804-11	CARBON	75	5%	1/4W	
R2310	1-247-883-00	CARBON	150K	5%	1/4W	
R2311	1-247-883-00	CARBON	150K	5%	1/4W	
R2312	1-247-804-11	CARBON	75	5%	1/4W	
R2313	1-247-883-00	CARBON	150K	5%	1/4W	
R2314	1-247-883-00	CARBON	150K	5%	1/4W	
R2315	1-249-403-11	CARBON	68	5%	1/4W	
R2316	1-249-403-11	CARBON	68	5%	1/4W	
R2317	1-247-895-00	CARBON	470K	5%	1/4W	
R2318	1-247-895-00	CARBON	470K	5%	1/4W	
R2319	1-247-895-00	CARBON	470K	5%	1/4W	
R2320	1-247-895-00	CARBON	470K	5%	1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R2321	1-247-895-00	CARBON	470K	5%	1/4W	
R2322	1-249-403-11	CARBON	68	5%	1/4W	
R2323	1-249-403-11	CARBON	68	5%	1/4W	
R2324	1-247-895-00	CARBON	470K	5%	1/4W	
R2325	1-247-895-00	CARBON	470K	5%	1/4W	
R2326	1-247-895-00	CARBON	470K	5%	1/4W	
R2327	1-249-403-11	CARBON	68	5%	1/4W	
R2328	1-249-403-11	CARBON	68	5%	1/4W	
R2329	1-247-895-00	CARBON	470K	5%	1/4W	
R2330	1-247-895-00	CARBON	470K	5%	1/4W	
R2331	1-247-895-00	CARBON	470K	5%	1/4W	
R2332	1-247-895-00	CARBON	470K	5%	1/4W	
R2333	1-247-895-00	CARBON	470K	5%	1/4W	
R2334	1-247-895-00	CARBON	470K	5%	1/4W	
R2335	1-247-895-00	CARBON	470K	5%	1/4W	
R2336	1-247-895-00	CARBON	470K	5%	1/4W	
R2337	1-247-895-00	CARBON	470K	5%	1/4W	
R2338	1-249-421-11	CARBON	2.2K	5%	1/4W	
R2339	1-247-804-11	CARBON	75	5%	1/4W	
R2340	1-247-804-11	CARBON	75	5%	1/4W	
R2341	1-249-425-11	CARBON	4.7K	5%	1/4W	
R2342	1-249-425-11	CARBON	4.7K	5%	1/4W	
R2343	1-249-425-11	CARBON	4.7K	5%	1/4W	
R2344	1-249-425-11	CARBON	4.7K	5%	1/4W	
R2345	1-249-425-11	CARBON	4.7K	5%	1/4W	
R2346	1-249-425-11	CARBON	4.7K	5%	1/4W	
R2347	1-249-421-11	CARBON	2.2K	5%	1/4W	
R2348	1-249-417-11	CARBON	1K	5%	1/4W	
R2349	1-249-417-11	CARBON	1K	5%	1/4W	
R2350	1-249-417-11	CARBON	1K	5%	1/4W	
R2351	1-249-417-11	CARBON	1K	5%	1/4W	

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*A-1390-304-A S BOARD, COMPLETE

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<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C3201	1-124-910-11	ELECT	47MF	20%	50V	
C3205	1-124-907-11	ELECT	10MF	20%	50V	
C3217	1-124-907-11	ELECT	10MF	20%	50V	
C3218	1-126-103-11	ELECT	470MF	20%	16V	
C3219	1-124-477-11	ELECT	47MF	20%	25V	
C3221	1-124-907-11	ELECT	10MF	20%	50V	
C3222	1-124-907-11	ELECT	10MF	20%	50V	
C3223	1-130-479-00	MYLAR	0.0047MF	5%	50V	
C3224	1-130-479-00	MYLAR	0.0047MF	5%	50V	
C3225	1-136-177-00	FILM	1MF	5%	50V	
C3226	1-136-177-00	FILM	1MF	5%	50V	
C3227	1-124-907-11	ELECT	10MF	20%	50V	
C3228	1-124-903-11	ELECT	1MF	20%	50V	
C3229	1-124-907-11	ELECT	10MF	20%	50V	
C3230	1-124-907-11	ELECT	10MF	20%	50V	
C3231	1-124-903-11	ELECT	1MF	20%	50V	
C3232	1-124-903-11	ELECT	1MF	20%	50V	
C3233	1-163-157-00	FILM	0.022MF	5%	50V	
C3234	1-124-907-11	ELECT	10MF	20%	50V	
C3235	1-124-903-11	ELECT	1MF	20%	50V	
C3236	1-136-496-81	FILM	0.082MF	5%	50V	
C3237	1-163-157-00	FILM	0.022MF	5%	50V	
C3238	1-124-907-11	ELECT	10MF	20%	50V	
C3239	1-130-491-00	MYLAR	0.047MF	5%	50V	
C3240	1-130-475-00	MYLAR	0.0022MF	5%	50V	
C3241	1-124-907-11	ELECT	10MF	20%	50V	
C3242	1-126-233-11	ELECT	22MF	20%	25V	
C3243	1-136-165-00	FILM	0.1MF	5%	50V	
C3244	1-124-907-11	ELECT	10MF	20%	50V	
C3245	1-126-529-11	ELECT	0.47MF	20%	50V	
C3246	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V	
C3247	1-126-529-11	ELECT	0.47MF	20%	50V	
C3248	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V	

<CONNECTOR>

CN3201	*1-691-632-11	CONNECTOR, BOARD TO BOARD 15P

<DIODE>

D3201	8-719-981-50	DIODE RB-100A
D3202	8-719-109-97	DIODE RD6.8ES-B2

<IC>

IC3202	8-752-057-18	IC CXA1315P
IC3203	8-759-153-08	IC UPC1891ACY
IC3204	8-759-245-75	IC TA8184P

<RESISTOR>

JR3206	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR3207	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR3208	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR3209	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR3210	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR3211	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR3213	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR3214	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR3217	1-216-295-00	METAL GLAZE	0	5%	1/10W
R3201	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R3202	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R3210	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R3212	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R3213	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R3215	1-216-033-00	METAL GLAZE	220	5%	1/10W
R3218	1-216-033-00	METAL GLAZE	220	5%	1/10W
R3220	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R3223	1-216-295-00	METAL GLAZE	0	5%	1/10W
R3228	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R3229	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R3230	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R3231	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R3232	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R3233	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R3234	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W
R3235	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W
R3238	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R3239	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R3240	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R3241	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W
R3242	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R3243	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R3244	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R3245	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R3246	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R3247	1-216-119-00	METAL GLAZE	820K	5%	1/10W
R3248	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W
R3249	1-216-089-00	METAL GLAZE	47K	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION	REMARK
R3251	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R3252	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R3253	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R3254	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R3256	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R3259	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R3260	1-216-049-00	METAL GLAZE 1K 5% 1/10W	

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REF.NO.	PART NO.	DESCRIPTION	REMARK
	*A-1373-365-A	D1 BOARD, COMPLETE ****************** (KV-S29JN1,S29MN1,S29SN1)	
	*4-341-751-01	EYELET (EY801~EY804,EY901~EY904)	
	*4-341-752-01	EYELET (EY811,EY812,EY911,EY912)	
	4-382-854-11	SCREW (M3X10), P, SW (+)	

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
C801	1-124-589-11	ELECT 47MF 20% 16V	
C802	1-124-589-11	ELECT 47MF 20% 16V	
C804	1-130-483-00	MYLAR 0.01MF 5% 50V	
C805	1-136-165-00	FILM 0.1MF 5% 50V	
C806	1-136-165-00	FILM 0.1MF 5% 50V	
C807	1-124-360-00	ELECT 1000MF 20% 16V	
C809	1-136-104-00	FILM 0.16MF 5% 200V	
C810	1-136-177-00	FILM 1MF 5% 50V	
C811	1-162-318-11	CERAMIC 0.001MF 10% 500V	
C812	1-126-163-11	ELECT 4.7MF 20% 50V	
C813	1-130-491-00	MYLAR 0.047MF 5% 50V	
C814	1-124-261-00	ELECT 10MF 20% 50V	
C815	1-124-261-00	ELECT 10MF 20% 50V	
C816	1-124-234-00	ELECT 22MF 20% 16V	
C817	1-126-163-11	ELECT 4.7MF 20% 50V	
C818	1-124-589-11	ELECT 47MF 20% 16V	
C819	1-136-165-00	FILM 0.1MF 5% 50V	
C820	1-126-103-11	ELECT 470MF 20% 16V	
C901	1-136-173-00	FILM 0.47MF 5% 50V	
C902	1-124-907-11	ELECT 10MF 20% 50V	
C903	1-136-169-00	FILM 0.22MF 5% 50V	
C904	1-130-471-00	MYLAR 0.001MF 5% 50V	
C905	1-124-261-00	ELECT 10MF 20% 50V	
C906	1-124-046-00	ELECT 10MF 20% 160V	
C907	1-124-465-00	ELECT 0.47MF 20% 50V	
C908	1-102-112-00	CERAMIC 330PF 10% 50V	
C910	1-136-756-11	FILM 0.24MF 5% 200V	
C911	1-136-165-00	FILM 0.1MF 5% 50V	
C912	1-137-366-51	FILM 0.0022MF 5% 50V	
C913	1-124-589-11	ELECT 47MF 20% 16V	
C914	1-106-367-00	MYLAR 0.01MF 10% 100V	
C915	1-126-301-11	ELECT 1MF 20% 50V	
C917	1-130-471-00	MYLAR 0.001MF 5% 50V	
C918	1-102-074-00	CERAMIC 0.001MF 10% 50V	
C920	1-130-202-00	FILM 0.022MF 5% 400V	
C922	1-124-557-11	ELECT 1000MF 20% 25V	
C923	1-137-364-91	FILM 0.001MF 5% 50V	
C925	1-124-907-11	ELECT 10MF 20% 50V	
C926	1-136-165-00	FILM 0.1MF 5% 50V	
C927	1-136-171-00	FILM 0.33MF 5% 50V	
C928	1-124-261-00	ELECT 10MF 20% 50V	
C929	8-719-110-22	DIODE RD11ES-B2	
C930	1-130-483-00	MYLAR 0.01MF 5% 50V	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN801	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
CN802	*1-564-524-11	PLUG, CONNECTOR 9P	
CN803	*1-573-299-11	CONNECTOR, BOARD TO BOARD 10P	
CN804	*1-573-299-11	CONNECTOR, BOARD TO BOARD 10P	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D801	8-719-913-44	DIODE ERA82-004	
D802	8-719-911-19	DIODE 1SS119	
D803	8-719-911-19	DIODE 1SS119	
D804	8-719-911-19	DIODE 1SS119	
D805	8-719-801-35	THYRISTOR SHOR3D42	
D806	8-719-981-01	DIODE ERA81-004	
D807	8-719-981-01	DIODE ERA81-004	
D808	8-719-911-19	DIODE 1SS119	
D809	8-719-911-19	DIODE 1SS119	
D810	8-719-911-19	DIODE 1SS119	
D811	8-719-300-33	DIODE RU-3AM	
D812	8-719-911-19	DIODE 1SS119	
D813	8-719-109-88	DIODE RD5.6ES-B1	
D814	8-719-110-13	DIODE RD9.1ES-B2	
D815	8-719-911-19	DIODE 1SS119	
D816	8-719-911-19	DIODE 1SS119	
D817	8-719-911-19	DIODE 1SS119	
D901	8-719-911-19	DIODE 1SS119	
D902	8-719-109-96	DIODE RD6.8ES-B1	
D903	8-719-979-85	DIODE EGP20G	
D906	8-719-981-01	DIODE ERA81-004	
D907	8-719-911-19	DIODE 1SS119	
D908	8-719-981-01	DIODE ERA81-004	
D911	8-719-911-19	DIODE 1SS119	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC801	8-749-920-58	IC SI-3090CA	
IC802	8-752-052-88	IC CXA1526P	
IC803	8-759-135-80	IC UPC358C	
IC901	8-759-135-80	IC UPC358C	
IC903	8-759-987-16	IC LM393P	

<COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
L801	1-459-592-11	COIL (WITH CORE) (PMC)	
L802	1-459-941-12	COIL, CHOKE 3.4MMH	
L901	1-410-093-11	INDUCTOR 33MMH	
L902	1-459-075-00	COIL,DYNAMIC CONVERSION CHOKE	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q802	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q803	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q804	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q805	8-729-140-97	TRANSISTOR 2SB734-34	
Q806	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q807	8-729-140-97	TRANSISTOR 2SB734-34	
Q808	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q809	8-729-209-15	TRANSISTOR 2SD2012	
Q810	8-729-140-96	TRANSISTOR 2SD774-34	
Q811	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q812	8-729-900-36	TRANSISTOR DTC124ES	
Q813	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q901	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q902	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q903	8-729-119-78	TRANSISTOR 2SC2785-HFE	

D1

REF.NO.	PART NO.	DESCRIPTION				REMARK
Q904	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q905	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q906	8-729-119-80	TRANSISTOR 2SC2688-LK				
Q907	8-729-119-80	TRANSISTOR 2SC2688-LK				
Q908	8-729-300-80	TRANSISTOR 2SB860				
Q909	8-729-140-96	TRANSISTOR 2SD774-34				
Q910	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q911	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q912	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q913	8-729-011-02	TRANSISTOR 2SK1917				
Q914	8-729-119-76	TRANSISTOR 2SA1175-HFE				

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R801	1-249-409-11	CARBON	220	5%	1/4W	F
R802	1-249-409-11	CARBON	220	5%	1/4W	
R804	1-247-891-00	CARBON	330K	5%	1/4W	
R806	1-247-885-00	CARBON	180K	5%	1/4W	
R807	1-247-891-00	CARBON	330K	5%	1/4W	
R808	1-215-461-00	METAL	47K	1%	1/4W	
R809	1-249-423-11	CARBON	3.3K	5%	1/4W	
R810	1-249-413-11	CARBON	470	5%	1/4W	
R811	1-249-434-11	CARBON	27K	5%	1/4W	
R812	1-249-438-11	CARBON	56K	5%	1/4W	
R813	1-249-417-11	CARBON	1K	5%	1/4W	
R815	1-249-427-11	CARBON	6.8K	5%	1/4W	
R816	1-249-425-11	CARBON	4.7K	5%	1/4W	
R817	1-249-422-11	CARBON	2.7K	5%	1/4W	
R818	1-249-417-11	CARBON	1K	5%	1/4W	
R819	1-249-432-11	CARBON	18K	5%	1/4W	
R820	1-249-417-11	CARBON	1K	5%	1/4W	
R821	1-216-379-11	METAL OXIDE	6.8	5%	2W	F
R822	1-249-423-11	CARBON	3.3K	5%	1/4W	
R824	1-247-713-11	CARBON	1K	5%	1/4W	F
R825	1-215-857-11	METAL OXIDE	10	5%	1W	F
R826	1-249-404-00	CARBON	82	5%	1/4W	
R827	1-215-875-11	METAL OXIDE	10K	5%	1W	F
R828	1-249-441-11	CARBON	100K	5%	1/4W	
R829	1-249-414-11	CARBON	560	5%	1/4W	
R830	1-249-411-11	CARBON	330	5%	1/4W	
R831	1-249-426-11	CARBON	5.6K	5%	1/4W	
R832	1-215-864-00	METAL OXIDE	150	5%	1W	F
R833	1-249-421-11	CARBON	2.2K	5%	1/4W	
R834	1-249-438-11	CARBON	56K	5%	1/4W	
R835	1-249-393-11	CARBON	10	5%	1/4W	
R836	1-249-435-11	CARBON	33K	5%	1/4W	
R837	1-249-435-11	CARBON	33K	5%	1/4W	
R838	1-216-359-00	METAL OXIDE	6.8	5%	1W	F
R839	1-249-410-11	CARBON	270	5%	1/4W	
R840	1-249-429-11	CARBON	10K	5%	1/4W	
R841	1-249-437-11	CARBON	47K	5%	1/4W	
R842	1-249-429-11	CARBON	10K	5%	1/4W	
R843	1-249-421-11	CARBON	2.2K	5%	1/4W	
R845	1-249-431-11	CARBON	15K	5%	1/4W	
R846	1-249-423-11	CARBON	3.3K	5%	1/4W	
R847	1-249-405-11	CARBON	100	5%	1/4W	
R901	1-249-425-11	CARBON	4.7K	5%	1/4W	
R902	1-249-438-11	CARBON	56K	5%	1/4W	
R903	1-249-429-11	CARBON	10K	5%	1/4W	
R904	1-249-429-11	CARBON	10K	5%	1/4W	
R905	1-249-429-11	CARBON	10K	5%	1/4W	
R906	1-249-425-11	CARBON	4.7K	5%	1/4W	
R907	1-249-429-11	CARBON	10K	5%	1/4W	
R908	1-249-437-11	CARBON	47K	5%	1/4W	
R909	1-249-433-11	CARBON	22K	5%	1/4W	
R910	1-249-431-11	CARBON	15K	5%	1/4W	
R911	1-247-895-00	CARBON	470K	5%	1/4W	
R912	1-249-429-11	CARBON	10K	5%	1/4W	
R913	1-249-425-11	CARBON	4.7K	5%	1/4W	
R914	1-249-401-11	CARBON	47	5%	1/4W	
R915	1-249-425-11	CARBON	4.7K	5%	1/4W	
R916	1-249-421-11	CARBON	2.2K	5%	1/4W	
R917	1-249-439-11	CARBON	68K	5%	1/4W	
R918	1-249-413-11	CARBON	470	5%	1/4W	
R919	1-249-437-11	CARBON	47K	5%	1/4W	
R920	1-249-418-11	CARBON	1.2K	5%	1/4W	F
R921	1-215-876-00	METAL OXIDE	15K	5%	1W	F
R922	1-215-870-11	METAL OXIDE	1.5K	5%	1W	F
R923	1-249-429-11	CARBON	10K	5%	1/4W	
R924	1-249-423-11	CARBON	3.3K	5%	1/4W	
R925	1-249-415-11	CARBON	680	5%	1/4W	
R926	1-249-409-11	CARBON	220	5%	1/4W	
R927	1-249-429-11	CARBON	10K	5%	1/4W	
R928	1-249-421-11	CARBON	2.2K	5%	1/4W	
R929	1-249-429-11	CARBON	10K	5%	1/4W	
R930	1-249-434-11	CARBON	27K	5%	1/4W	
R931	1-249-421-11	CARBON	2.2K	5%	1/4W	
R933	1-249-421-11	CARBON	2.2K	5%	1/4W	
R934	1-249-439-11	CARBON	68K	5%	1/4W	
R935	1-249-429-11	CARBON	10K	5%	1/4W	
R936	1-249-429-11	CARBON	10K	5%	1/4W	
R937	1-249-421-11	CARBON	2.2K	5%	1/4W	
R938	1-249-405-11	CARBON	100	5%	1/4W	
R939	1-249-405-11	CARBON	100	5%	1/4W	F
R940	1-249-405-11	CARBON	100	5%	1/4W	F
R941	1-249-405-11	CARBON	100	5%	1/4W	
R944	1-249-432-11	CARBON	18K	5%	1/4W	
R945	1-247-895-00	CARBON	470K	5%	1/4W	
R946	1-249-425-11	CARBON	4.7K	5%	1/4W	
R947	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R948	1-249-435-11	CARBON	33K	5%	1/4W	
R950	1-249-425-11	CARBON	4.7K	5%	1/4W	
R951	1-249-433-11	CARBON	22K	5%	1/4W	
R952	1-249-405-11	CARBON	100	5%	1/4W	
R953	1-247-889-00	CARBON	270K	5%	1/4W	
R954	1-247-889-00	CARBON	270K	5%	1/4W	

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*A-1373-334-A D1 BOARD, COMPLETE
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(KV-S34JN1,S34MN1,S34SN1)

PART NO.	DESCRIPTION
*4-341-751-01	EYELET (EY801~EY804,EY901~EY904)
*4-341-752-01	EYELET (EY811,EY812,EY911,EY912)
4-382-854-11	SCREW (M3X10), P, SW (+)

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C801	1-124-589-11	ELECT	47MF	20%	16V	
C802	1-124-589-11	ELECT	47MF	20%	16V	
C804	1-130-483-00	MYLAR	0.01MF	5%	50V	
C805	1-136-165-00	FILM	0.1MF	5%	50V	
C806	1-136-165-00	FILM	0.1MF	5%	50V	
C807	1-124-360-00	ELECT	1000MF	20%	16V	
C809	1-136-104-00	FILM	0.16MF	5%	200V	
C810	1-136-177-00	FILM	1MF	5%	50V	
C811	1-162-318-11	CERAMIC	0.001MF	10%	500V	
C812	1-126-163-11	ELECT	4.7MF	20%	50V	

D1

REF.NO.	PART NO.	DESCRIPTION			REMARK
C813	1-130-491-00	MYLAR	0.047MF	5%	50V
C814	1-124-261-00	ELECT	10MF	20%	50V
C815	1-124-261-00	ELECT	10MF	20%	50V
C816	1-124-234-00	ELECT	22MF	20%	16V
C817	1-126-163-11	ELECT	4.7MF	20%	50V
C818	1-124-589-11	ELECT	47MF	20%	16V
C819	1-136-165-00	FILM	0.1MF	5%	50V
C820	1-126-103-11	ELECT	470MF	20%	16V
C901	1-136-173-00	FILM	0.47MF	5%	50V
C902	1-124-907-11	ELECT	10MF	20%	50V
C903	1-163-157-00	FILM	0.022MF	5%	50V
C904	1-130-471-00	MYLAR	0.001MF	5%	50V
C905	1-124-261-00	ELECT	10MF	20%	50V
C906	1-124-046-00	ELECT	10MF	20%	160V
C907	1-124-465-00	ELECT	0.47MF	20%	50V
C908	1-102-112-00	CERAMIC	330PF	10%	50V
C910	1-136-756-11	FILM	0.24MF	5%	200V
C911	1-137-198-81	FILM	1MF	5%	50V
C913	1-124-589-11	ELECT	47MF	20%	16V
C914	1-106-379-12	MYLAR	0.033MF	10%	100V
C915	1-126-301-11	ELECT	1MF	20%	50V
C916	1-130-479-00	MYLAR	0.0047MF	5%	50V
C917	1-130-479-00	MYLAR	0.0047MF	5%	50V
C918	1-102-074-00	CERAMIC	0.001MF	10%	50V
C920	1-130-202-00	FILM	0.022MF	5%	400V
C921	1-137-198-81	FILM	1MF	5%	50V
C922	1-124-557-11	ELECT	1000MF	20%	25V
C923	1-137-364-91	FILM	0.001MF	5%	50V
C925	1-124-907-11	ELECT	10MF	20%	50V
C926	1-136-175-00	FILM	0.068MF	5%	50V
C928	1-124-261-00	ELECT	10MF	20%	50V
C929	8-719-110-22	DIODE RD11ES-B2			
C930	1-130-483-00	MYLAR	0.01MF	5%	50V

<CONNECTOR>

CN801	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P
CN802	*1-564-524-11	PLUG, CONNECTOR 9P
CN803	*1-573-299-11	CONNECTOR, BOARD TO BOARD 10P
CN804	*1-573-299-11	CONNECTOR, BOARD TO BOARD 10P

<DIODE>

D801	8-719-913-44	DIODE ERA82-004
D802	8-719-911-19	DIODE 1SS119
D803	8-719-911-19	DIODE 1SS119
D804	8-719-911-19	DIODE 1SS119
D805	8-719-801-35	THYRISTOR SHOR3D42
D806	8-719-981-01	DIODE ERA81-004
D807	8-719-981-01	DIODE ERA81-004
D808	8-719-911-19	DIODE 1SS119
D809	8-719-911-19	DIODE 1SS119
D810	8-719-911-19	DIODE 1SS119
D811	8-719-300-33	DIODE RU-3AM
D812	8-719-911-19	DIODE 1SS119
D813	8-719-109-88	DIODE RD5.6ES-B1
D814	8-719-110-13	DIODE RD9.1ES-B2
D815	8-719-911-19	DIODE 1SS119
D816	8-719-911-19	DIODE 1SS119
D817	8-719-911-19	DIODE 1SS119
D901	8-719-911-19	DIODE 1SS119
D902	8-719-109-96	DIODE RD6.8ES-B1
D903	8-719-979-85	DIODE EGP20G
D906	8-719-981-01	DIODE ERA81-004
D907	8-719-911-19	DIODE 1SS119
D908	8-719-981-01	DIODE ERA81-004
D911	8-719-911-19	DIODE 1SS119

<IC>

IC801	8-749-920-58	IC SI-3090CA
IC802	8-752-052-88	IC CXA1526P
IC803	8-759-135-80	IC UPC358C
IC901	8-759-135-80	IC UPC358C
IC903	8-759-987-16	IC LM393P

<COIL>

L801	1-459-592-11	COIL (WITH CORE) (PMC)	
L802	1-459-941-12	COIL, CHOKE 3.4MMH	
L901	1-410-093-11	INDUCTOR	33MMH
L902	1-459-148-00	COIL	
L903	1-459-941-12	COIL, CHOKE 3.4MMH	

<TRANSISTOR>

Q802	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q803	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q804	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q805	8-729-140-97	TRANSISTOR 2SB734-34
Q806	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q807	8-729-140-97	TRANSISTOR 2SB734-34
Q808	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q809	8-729-209-15	TRANSISTOR 2SD2012
Q810	8-729-140-96	TRANSISTOR 2SD774-34
Q811	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q812	8-729-900-36	TRANSISTOR DTC124ES
Q813	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q901	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q902	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q903	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q904	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q905	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q906	8-729-119-80	TRANSISTOR 2SC2688-LK
Q907	8-729-119-80	TRANSISTOR 2SC2688-LK
Q908	8-729-300-80	TRANSISTOR 2SB860
Q909	8-729-140-96	TRANSISTOR 2SD774-34
Q910	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q911	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q912	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q913	8-729-011-02	TRANSISTOR 2SK1917
Q914	8-729-119-76	TRANSISTOR 2SA1175-HFE

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R801	1-249-409-11	CARBON	220	5%	1/4W	F
R802	1-249-409-11	CARBON	220	5%	1/4W	
R804	1-247-891-00	CARBON	330K	5%	1/4W	
R805	1-249-411-11	CARBON	330	5%	1/4W	
R806	1-247-885-00	CARBON	180K	5%	1/4W	
R807	1-247-891-00	CARBON	330K	5%	1/4W	
R808	1-215-461-00	METAL	47K	1%	1/4W	
R809	1-249-423-11	CARBON	3.3K	5%	1/4W	
R810	1-249-413-11	CARBON	470	5%	1/4W	
R811	1-249-434-11	CARBON	27K	5%	1/4W	
R812	1-249-438-11	CARBON	56K	5%	1/4W	
R813	1-249-417-11	CARBON	1K	5%	1/4W	
R815	1-249-427-11	CARBON	6.8K	5%	1/4W	
R816	1-249-425-11	CARBON	4.7K	5%	1/4W	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

D1 SWITCH BLOCK

REF.NO.	PART NO.	DESCRIPTION				REMARK
R817	1-249-424-11	CARBON	3.9K	5%	1/4W	
R818	1-249-417-11	CARBON	1K	5%	1/4W	
R819	1-249-432-11	CARBON	18K	5%	1/4W	
R820	1-249-417-11	CARBON	1K	5%	1/4W	
R821	1-216-379-11	METAL OXIDE	6.8	5%	2W	F
R822	1-249-423-11	CARBON	3.3K	5%	1/4W	
R824	1-247-713-11	CARBON	1K	5%	1/4W	F
R825	1-215-861-00	METAL OXIDE	47	5%	1W	F
R826	1-249-404-00	CARBON	82	5%	1/4W	
R827	1-215-875-11	METAL OXIDE	10K	5%	1W	F
R828	1-249-441-11	CARBON	100K	5%	1/4W	
R829	1-249-414-11	CARBON	560	5%	1/4W	
R830	1-249-411-11	CARBON	330	5%	1/4W	
R831	1-249-426-11	CARBON	5.6K	5%	1/4W	
R833	1-249-421-11	CARBON	2.2K	5%	1/4W	
R834	1-249-438-11	CARBON	56K	5%	1/4W	
R835	1-249-393-11	CARBON	10	5%	1/4W	
R836	1-249-435-11	CARBON	33K	5%	1/4W	
R837	1-249-435-11	CARBON	33K	5%	1/4W	
R838	1-216-359-00	METAL OXIDE	6.8	5%	1W	F
R839	1-249-410-11	CARBON	270	5%	1/4W	
R840	1-249-429-11	CARBON	10K	5%	1/4W	
R841	1-249-437-11	CARBON	47K	5%	1/4W	
R842	1-249-429-11	CARBON	10K	5%	1/4W	
R843	1-249-421-11	CARBON	2.2K	5%	1/4W	
R845	1-249-431-11	CARBON	15K	5%	1/4W	
R846	1-249-423-11	CARBON	3.3K	5%	1/4W	
R847	1-249-405-11	CARBON	100	5%	1/4W	
R901	1-249-425-11	CARBON	4.7K	5%	1/4W	
R902	1-249-438-11	CARBON	56K	5%	1/4W	
R903	1-249-429-11	CARBON	10K	5%	1/4W	
R904	1-249-429-11	CARBON	10K	5%	1/4W	
R905	1-249-429-11	CARBON	10K	5%	1/4W	
R906	1-249-425-11	CARBON	4.7K	5%	1/4W	
R907	1-249-429-11	CARBON	10K	5%	1/4W	
R908	1-249-435-11	CARBON	33K	5%	1/4W	
R909	1-249-433-11	CARBON	22K	5%	1/4W	
R910	1-249-436-11	CARBON	39K	5%	1/4W	
R911	1-247-895-00	CARBON	470K	5%	1/4W	
R912	1-249-429-11	CARBON	10K	5%	1/4W	
R913	1-249-425-11	CARBON	4.7K	5%	1/4W	
R914	1-249-401-11	CARBON	47	5%	1/4W	
R915	1-249-427-11	CARBON	6.8K	5%	1/4W	
R916	1-249-421-11	CARBON	2.2K	5%	1/4W	
R917	1-249-439-11	CARBON	68K	5%	1/4W	
R918	1-249-413-11	CARBON	470	5%	1/4W	
R919	1-249-432-11	CARBON	18K	5%	1/4W	
R920	1-249-418-11	CARBON	1.2K	5%	1/4W	F
R921	1-215-876-00	METAL OXIDE	15K	5%	1W	F
R922	1-215-862-11	METAL OXIDE	68	5%	1W	F
R923	1-249-429-11	CARBON	10K	5%	1/4W	
R924	1-249-423-11	CARBON	3.3K	5%	1/4W	
R925	1-249-415-11	CARBON	680	5%	1/4W	
R926	1-249-409-11	CARBON	220	5%	1/4W	
R927	1-249-419-11	CARBON	1.5K	5%	1/4W	
R928	1-249-421-11	CARBON	2.2K	5%	1/4W	
R929	1-249-429-11	CARBON	10K	5%	1/4W	
R930	1-249-434-11	CARBON	27K	5%	1/4W	
R931	1-249-421-11	CARBON	2.2K	5%	1/4W	
R932	1-249-431-11	CARBON	15K	5%	1/4W	
R933	1-249-421-11	CARBON	2.2K	5%	1/4W	
R934	1-249-441-11	CARBON	100K	5%	1/4W	
R935	1-249-429-11	CARBON	10K	5%	1/4W	
R936	1-249-429-11	CARBON	10K	5%	1/4W	
R937	1-249-421-11	CARBON	2.2K	5%	1/4W	
R938	1-249-405-11	CARBON	100	5%	1/4W	
R939	1-249-405-11	CARBON	100	5%	1/4W	F
R940	1-249-405-11	CARBON	100	5%	1/4W	F
R941	1-249-405-11	CARBON	100	5%	1/4W	
R944	1-249-433-11	CARBON	22K	5%	1/4W	
R945	1-247-895-00	CARBON	470K	5%	1/4W	
R946	1-249-425-11	CARBON	4.7K	5%	1/4W	
R947	1-249-415-11	CARBON	680	5%	1/4W	F
R948	1-249-439-11	CARBON	68K	5%	1/4W	
R950	1-249-425-11	CARBON	4.7K	5%	1/4W	
R952	1-249-405-11	CARBON	100	5%	1/4W	
R953	1-247-889-00	CARBON	270K	5%	1/4W	
R954	1-247-889-00	CARBON	270K	5%	1/4W	

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1-466-752-11 SWITCH BLOCK

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<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION			
R1	1-216-056-00	METAL GLAZE	2K	5%	1/10W
R2	1-216-045-00	METAL GLAZE	680	5%	1/10W
R3	1-216-043-00	METAL GLAZE	560	5%	1/10W
R4	1-216-041-00	METAL GLAZE	470	5%	1/10W

<SWITCH>

REF.NO.	PART NO.	DESCRIPTION
S1	9-902-720-01	TACTILE SWITCH
S2	9-902-720-01	TACTILE SWITCH
S3	9-902-720-01	TACTILE SWITCH
S4	9-902-720-01	TACTILE SWITCH
S5	9-902-720-01	TACTILE SWITCH

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MISCELLANEOUS

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<KV-S29JN1,S29MN1,S29SN1>

REF.NO.	PART NO.	DESCRIPTION
	⚠.1-251-027-11	DISTRIBUTOR
	⚠.1-402-742-11	COIL, DEGAUSSING
	⚠.1-402-743-11	COIL, DEGAUSSING
	⚠.1-451-394-11	DEFLECTION YOKE (Y29EXA)
	1-452-032-00	MAGNET, DISK; 10MM ϕ
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ
	⚠.1-452-616-12	NECK ASSY, PICTURE TUBE (NA323)
	1-504-121-41	SPEAKER (SQUAWKER) (5CM)
	1-544-557-11	SPEAKER (12CM)
	*1-555-110-00	CABLE, PIN
	⚠.1-696-401-11	CORD, POWER (WITH CONNECTOR) (KV-S29JN1)
	⚠.1-574-062-12	CORD, POWER (WITH CONNECTOR) (KV-S29MN1)
	⚠.1-574-358-11	CORD, POWER (WITH CONNECTOR) (KV-S29SN1)
V901	⚠.8-733-837-05	PICTURE TUBE (M68KUZ10X) (KV-S29JN1,S29MN1)
	⚠.8-733-836-05	PICTURE TUBE (M68KUZ10X) (KV-S29SN1)

<KV-S34JN1,S34MN1,S34SN1>

REF.NO.	PART NO.	DESCRIPTION
	⚠.1-251-027-11	DISTRIBUTOR
	⚠.1-426-607-11	COIL, DEGAUSSING
	⚠.1-426-608-11	COIL, DEGAUSSING
	⚠.1-451-393-11	DEFLECTION YOKE (Y34EXA)
	1-452-032-00	MAGNET, DISK; 10MM ϕ

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ	
	⚠1-452-616-12	NECK ASSY, PICTURE TUBE (NA323)	
	1-504-121-41	SPEAKER (SQUAWKER) (5CM)	
	1-544-557-11	SPEAKER (12CM)	
	*1-555-110-00	CABLE, PIN	
	⚠1-696-401-11	CORD, POWER (WITH CONNECTOR) (KV-S34JN1)	
	⚠1-574-062-12	CORD, POWER (WITH CONNECTOR) (KV-S34MN1)	
	⚠1-574-358-11	CORD, POWER (WITH CONNECTOR) (KV-S34SN1)	
V901	⚠8-733-731-05	PICTURE TUBE (M81KVA10X) (KV-S34JN1)	
	⚠8-733-733-05	PICTURE TUBE (M81KVA10X) (KV-S34MN1)	
	⚠8-733-732-05	PICTURE TUBE (M81KVA10X) (KV-S34SN1)	

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ACCESSORIES AND PACKING MATERIALS

<KV-S29JN1,S29MN1,S29SN1>

PART NO.	DESCRIPTION
X-4030-173-1	BUCKLE ASSY (B), B
1-466-779-11	ADAPTOR, CHANGE (KV-S29JN1)
1-466-780-11	ADAPTOR, CHANGE (KV-S29JN1)
3-701-910-00	SCREW, SPECIAL (DIA. 3.8X20)
3-755-606-12	MANUAL, INSTRUCTION
3-755-606-42	MANUAL, INSTRUCTION (KV-S29JN1,S29MN1)
*4-038-176-01	CUSHION (UPPER) (ASSY)
*4-038-177-01	CUSHION (LOWER) (ASSY)
*4-038-174-01	INDIVIDUAL CARTON
*4-038-175-01	TRAY
*4-030-594-01	BAG, PROTECTION
4-392-004-01	CLIP
*4-396-077-01	JOINT

<KV-S34JN1,S34MN1,S34SN1>

PART NO.	DESCRIPTION
X-4030-173-1	BUCKLE ASSY (B), B
1-466-779-11	ADAPTOR, CHANGE (KV-S34JN1)
1-466-780-11	ADAPTOR, CHANGE (KV-S34JN1)
3-701-910-00	SCREW, SPECIAL (DIA. 3.8X20)
3-755-606-12	MANUAL, INSTRUCTION
3-755-606-42	MANUAL, INSTRUCTION (KV-S34JN1,S34MN1)
*4-034-198-01	CUSHION (UPPER) (ASSY)
*4-034-199-01	CUSHION (LOWER) (ASSY)
*4-036-554-01	INDIVIDUAL CARTON
*4-037-068-01	TRAY
*4-388-954-01	BAG, PROTECTION
4-392-004-01	CLIP
*4-396-077-01	JOINT

REMOTE COMMANDER

PART NO.	DESCRIPTION
1-693-173-11	REMOTE COMMANDER (RM-821)
9-998-214-11	COVER, BATTERY (FOR RM-821)
9-998-277-21	COVER (FOR RM-821)